SECTION 01060

SPECIAL CLAUSES

****

VERSION 2005-1(C-6)-SECTION 01060 January 2005

STANDARD SPECIAL CLAUSES FOR FIXED PRICE CONSTRUCTION CONTRACTS

NOTES ON USE OF THIS SECTION

1. These Special clauses are grouped in categories generally described as follows:

SC 1.1 thru SC 1.17	**Related to Performance or placement of work.**
SC 1.18 thru SC 1.23	**Contractor - Government coordination and obligations.**
SC 1.24 thru SC 1.39	**Submittal of Documents**
SC 1.40 thru SC 1.43	**Miscellaneous requirements and constraints.**
SC 1.44 thru SC 1.55	**Observance of Host Nation and/or local base laws and regulations.**
SC 1.56 thru SC 1.62	**Clauses for exclusive use on Egyptian Projects.**
SC 1.63 thru SC 1.65	**Unique or specialized construction**

2. Paragraphs listed as "NOT USED" are reserved for additional paragraphs required and unique to each project. The number of these paragraphs will remain the same, and will remain in the body of the Special Clauses, so stating "NOT USED", to retain the numbering system.

3. The Specification Engineer shall edit the paragraph, (i.e., add appropriate language, delete inappropriate language, fill in blank spaces, delete inapplicable bracketed items, remove parenthesis where required) and coordinate with each Project Team as necessary with TAC.

****

****

1.66 ATTACHMENTS:

Appendix A - [Exploration Data] [NOT USED]

Appendix B - [Identification of Government

Furnished Property] [NOT USED]

Appendix C - [Blasting Report- Plates 1, 2 and 3] [NOT USED]

TAC FOR 60 - On-Site Accident Prevention Plan

TAC FORM 61 - Accident Prevention Program Hazard Analysis

TAC FORM 356 - Operation and Maintenance Training Validation Certificate

****

****

NOTE 1: For EBS projects, the appendices must be scanned into PDF format. Please notify the publisher by "e-mail" to add the required forms when the files are ready to be converted.

NOTE 2: Scanning of the Exploration Logs is often time consuming. Specification Engineers need to coordinate this action with the publisher a minimum of five (5) days prior to the publication date.

****

PART 1 GENERAL

****

NOTE: The requirements within this clause supplement FAR 52.236-26 entitled Preconstruction Conference. Coordination with EC-M, the responsible Resident Engineer Office (REO) and Contracting is required. This clause may be edited to meet the requirements of the project. Coordinate bracketed information with the specific requirements for this project.

****

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 Schedule of Meeting

At the earliest practicable time, prior to commencement of the work, the Contractor and any Subcontractors whose presence is necessary or requested, shall meet in conference with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to the details of the administration and execution of this contract. This will include but not necessarily be limited to the Contractor's Quality Control (CQC) Program, the Contractors Accident Prevention Program, submittals, [correspondence],[schedule],[access to the work site], [security requirements], [interface requirements], [temporary facilities and services], [hazards and risks], [working after normal hours or on weekends or holidays], [assignment of inspectors], [representations], [special requirements], [phasing], [____] and other aspects of this project that warrant clarification and understanding.

1.1.2 Meeting Minutes

It shall be the responsibility of the Contractors CQC System Manager to prepare detailed minutes of this meeting and submit same to the Contracting Officer for approval within three (3) work days. Any corrections deemed necessary by the Contracting Officer shall be incorporated and resubmitted within two (2) calendar days after receipt. Upon approval of the minutes by the Contracting Officer, the Contractor shall distribute the minutes to all parties present or concerned.

****

Note: This is a required clause. May be edited to meet the requirements of the project.

****

1.2 AREA USE PLAN

The Contractor shall submit to the Contracting Officer, within [twenty (20)] [_____] calendar days after Notice to Proceed, an Area Use Plan designating intended use of all areas within the project boundaries. This plan shall include, but not necessarily be limited to the following: the proposed location and dimensions of any area to be fenced and used by the Contractor; construction plant and building installations/the number of trailers and facilities to be used; avenues of ingress/egress to the fenced areas and details of the fence installation; drawings showing temporary electrical installations; temporary water and sewage disposal installations; material storage areas; hazardous storage areas. Any areas which may have to be graveled shall also be identified. The plan shall also include a narrative description of the building structural system, the site utility system; and the office or administration facilities. The Contractor shall also indicate if the use of a supplemental or other staging area is desired. The Contractor shall not begin construction of the mobilization facilities prior to approval by the Contracting Officer of the Area Use Plan described herein.

****

Note: Coordinate this clause with EC-M and/or the responsible Resident Engineer Office (REO). Coordinate the location of the Contractor's mobilization site with Site Development Division for incorporation into site plan. Determine if the Contractor may stage and/or store construction materials on site. Edit clause accordingly. Determine special requirements such as restrictions on use of existing roads, need to construct temporary haul routes, borrow and disposal sites, and constraints on access to the project site. Edit clause accordingly.

****

1.3 CONTRACTOR'S MOBILIZATION AREA

The Contractor will be permitted to use the area designated on Drawing C-[_________] within the contract limits for operation of his construction equipment and plants, shops, warehouses, and offices. The Contractor shall not be authorized to have living accommodations for his work force on the site. The Contractor is responsible for obtaining any required additional mobilization area above that designated. On completion of the contract, all facilities shall be removed from the mobilization area by the

Contractor and shall be disposed of in accordance with applicable Host Government Laws and Regulations. The site shall be cleared of construction debris and other materials and the area restored to its final grade.

1.3.1 Contractor's Temporary Facilities

1.3.1.1 General

All facilities within the Contractor's mobilization area shall be of substantial construction suitable for the local weather conditions. Sanitary facilities shall meet the requirements of Corps of Engineers, Safety and Health Requirements Manual EM 385-1-1.

1.3.1.2 Administrative Field Offices

The Contractor may provide and maintain administrative field office facilities within the mobilization area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

1.3.1.3 Storage Area

The Contractor shall construct a temporary 1.8 meter high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored green or brown, so that visibility through the fence is obstructed. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless approved in writing by the Contracting Officer.

1.3.1.4 Plant Communication

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. The devices shall be made available for use by Government personnel.

1.3.1.5 Appearance of Mobilization Site Facilities and/or Trailers

Mobilization Site Facilities and/or Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and shall be in a state of good repair. Trailers or other transportable structures which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the [military property] [construction site] until such work or maintenance has been performed to the satisfaction of the Contracting Officer.

1.3.1.6 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse with construction equipment or other vehicles unpaved areas which are not established roadways, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of soil onto paved or established roadways; gravel gradation shall be at the Contractor's discretion.

1.3.1.7 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own facilities and equipment.

1.3.1.8 Sanitation

a. Sanitary Facilities: The Contractor shall provide and maintain within the construction area minimum field-type sanitary facilities in accordance with the requirements of EM 385-1-1 Safety and Health Requirements Manual and approved by the Contracting Officer. Government toilet facilities will not be available to Contractor's personnel.

b. Trash Disposal: The Contractor shall be responsible for collection and disposal of trash from the work areas and from the mobilization area. All trash shall be disposed of off base in accordance with Host Nation requirements. Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Loose debris capable of being windblown, shall be immediately placed in sealed or covered containers to prevent it from being blown onto taxiways or runways. Any dirt or soil which is tracked onto paved or surfaced roadways shall be cleaned daily. Materials resulting from demolition activities which are salvageable shall be stored within the fenced area described above. Stored material not indoors, whether new or salvaged, shall be neatly stacked when stored.

1.3.1.9 Telephone

The Contractor shall make arrangements to install and pay all costs for telephone facilities desired.

1.3.1.10 Restoration of Storage Area

Upon completion of the project and after removal of mobilization facilities, trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition. Gravel used to traverse unpaved areas shall be removed and all such areas restored to their original conditions.

1.3.2 Protection and Maintenance of Traffic

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the [Host Nation] [and] [base authorities] [_____] having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with [Host Nation] [and] [base traffic] [_____]. The Contractor shall

investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.3.2.1 Haul Roads

The Contractor shall, at its own expense, construct access and haul roads necessary for proper prosecution of the work under this contract. Haul roads shall be constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided. The Contractor shall provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control shall be in accordance with the Special Clause entitled DUST CONTROL. Location, grade, width, and alignment of construction and hauling roads shall be subject to approval by the Contracting Officer. Lighting shall be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Upon completion of the work, haul roads designated by the Contracting Officer shall be removed.

1.3.2.2 Use of Existing Roads as Haul Routes

The Contractor shall be responsible for coordinating with the [Host Nation Government] [and the] [base authorities] [_____] for use of any existing roads as haul routes. Construction, and routing of new haul roads, and/or upgrading of existing roads to carry anticipated construction traffic shall be coordinated with the [Host Nation] [and] [Base authorities] [_____] and is the sole responsibility of the Contractor.

1.3.2.3 Employee Parking

Contractor employees shall park vehicles in an area approved by the Contracting Officer. Contractor employee parking shall not interfere with existing and established parking requirements of the [military installation] [_____].

1.3.3 Temporary Project Safety Fencing and Barricades

The Contractor shall impose all measures necessary to limit public access to hazardous areas and to ensure the restriction of workers to the immediate area of the construction and mobilization site. The Contracting Officer may require in writing, that the Contractor remove from the work any employee found to be in violation of this requirement.

1.3.3.1 Barricades

Barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night. Travel to and from the project site shall be restricted to a route approved by the Contracting Officer.

1.3.4 Host Nation Authorizations, Permits and Licenses

It shall be the Contractor's responsibility to obtain such local authorizations, permits and licenses necessary to establish his quarry

operations, batching operations and haul routes (See Special Clause entitled: COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS or COMPLIANACE WITH HOST COUNTRY RULES AND CUSTOMS (EGYPT)).

****
NOTE: Coordinate this clause with EC-M and/or the responsible Resident Engineer Office (REO).
****

1.4 CONTRACTOR'S OFF BASE MOBILIZATION AREA

The Contractor shall provide, furnish, operate and maintain facilities for his batching operations (e.g. concrete, asphalt, etc.) major shops and living facilities for his workers in an area off base. The specific area must be located such that no new contractor facilities are within the "Inhabited Building Clear Zone" (approximately 1355 meters, radius) surrounding ammunition/explosives storage and/or handling areas. The Contractor must submit his desired site location to the Contracting Officer for approval. All utilities will be the responsibility of the Contractor and shall be provided at no cost to the Government. On completion of the contract, all facilities shall be removed by the Contractor and shall be disposed of in the manner directed by the Contracting Officer. The site shall be cleared of construction debris and other materials and the area restored to its original condition.

1.4.1 Facilities Within the Mobilization Site

All facilities within the Contractor's mobilization site shall be of substantial construction suitable for the local weather conditions. Housing, messing and sanitary facilities shall meet the requirements of Corps of Engineers Safety and Health Requirements Manual EM 385-1-1. The Contractor shall provide all utilities required to make the site self-sufficient.

1.4.2 Trash Disposal

The Contractor shall be responsible for collection and disposal of trash from the work areas and from the mobilization camp areas. All trash shall be segregated into two categories, organic and inorganic, and disposed of as follows: Organic trash shall be deposited in the designated sanitary landfill. The Contractor's proposed disposal methods and locations for inorganic trash shall require prior approval of the Contracting Officer.

1.4.3 Special Requirements

The Contractor shall be responsible for coordinating with the Host Government use of any existing roads as haul routes. Construction, and routing of new haul roads, and/or upgrading of existing roads for the Contractor's use, is the sole responsibility of the Contractor. It shall be the Contractor's responsibility to obtain such local authorizations, permits and licenses necessary to establish his mobilization camp, quarry operations, batching operations and haul routes (See Clause COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS or COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS (EGYPT)).

1.5 RESPONSIBILITY FOR PHYSICAL SECURITY

Prior to mobilization, the Contractor shall submit his proposed means of providing project security to prevent unauthorized access to equipment,

facilities, materials and documents, and to safeguard them against sabotage, damage, and theft. The Contractor shall be responsible for physical security of all materials, supplies, and equipment of every description, including property which may be Government-furnished or owned, for all areas occupied jointly by the Contractor and the Government, as well as for all work performed.

****
NOTE: In accordance with CETAD-SL 13 Jan 1999 memo subject: "Force Protection Policy - Display of Communications Signs" TAC Resident Engineer Offices located in high threat areas will not display the "U.S. Army Corps of Engineers" communication signs or markers at construction or work sites in areas where the potential for terrorist attacks exists or is high. Use of this clause requires prior approval of the Security Office and EC-M. If approved for use, edit to meet the requirements of the project.
****

1.6 PROJECT SIGN

Within [thirty (30)] [_____] calendar days after receipt of Notice to Proceed, the Contractor shall furnish and install a project sign at or adjacent to the project site where directed by the Contracting Officer. The sign shall be in the English language and [_____] language. The sign shall be constructed with a face sheet of exterior grade plywood, 4-feet high by 8-feet wide by one-half-inch thick, mounted on suitable framing which shall be approved by the Contracting Officer. All parts of frames and signs shall be given a prime coat of exterior oil base paint and a minimum of two (2) finish coats of white semi-gloss paint. The Contracting Officer will supply the Contractor with all information to be displayed on the sign, i.e. wording, letter size, pictorial display, etc. The Contractor shall maintain the sign in good condition, as determined by the Contracting Officer, throughout the project construction period. On completion of the work under this contract, the sign shall be removed by the Contractor and disposed of as directed by the Contracting Officer. No direct payment will be made for the sign.

****
Note: This may be edited to meet the requirements of project.
****

1.7 DUST CONTROL

The Contractor shall be required to control objectional dust in the work areas, access roadways, and haul roads by means of controlled vehicle speeds or dust palliatives. Vehicles transporting sand, cement, gravel or other materials creating a dust problem shall be covered, as directed by the Contracting Officer, or in accordance with local Laws, codes, and regulations.

****
Note: This clause shall be used in conjunction with DFAR 52.236-7005 AIRFIELD SAFETY PRECAUTIONS. Coordinate usage with PDT-Contracting. Delete on all other projects. It may be edited as appropriate.
****

1.8 FOREIGN OBJECTS DAMAGE CONTROL

The Contractor shall prepare and submit to the Contracting Officer, for approval, his plan to control Foreign Objects Damage (FOD) at its mobilization site, construction site and during work on or near aircraft runways and/or taxiways. The plan shall be specific and shall describe in detail measures to be implemented to prevent deposit of foreign objects on runways and/or taxiways during construction. The Foreign Objects Damage control plan shall be submitted fifteen (15) calendar days prior to the start of any work on or near aircraft runways or taxiways. No work will be allowed near any runways or taxiways without approval of the FOD control plan by the Contracting Officer.

1.9 ENGLISH SPEAKING REPRESENTATIVE

At all times when any performance of the work at any site is being conducted by any employee of the Contractor or its subcontractors, suppliers, or vendors at any tier, the Contractor shall have a representative present at each site who has the capability of receiving instructions in the English language, fluently speaking the English language and explaining the work operations to persons performing the work in the language that those performing the work are capable of understanding. The Contracting Officer shall have the right to determine whether the proposed representative has sufficient technical and lingual capabilities, and the Contractor shall immediately replace any individual not acceptable to the Contracting Officer.

****
Note: This clause shall be coordinated with EC-M and the responsible field office. It may be edited as appropriate.
****

1.10 DIGGING PERMITS

1.10.1 Requirements for Digging Permits

Prior to the start of any work activity which requires excavation within the current [base] [_____], the Contractor shall obtain a digging permit.

1.10.2 Requests for Digging Permits

Requests for Digging Permits shall be submitted through the Contracting Officer to the [Base] [_____] a minimum of seven (7) days prior to the start of the work activity covered by the permit. The request for a Digging Permit shall include a narrative description of the work to be performed and a detailed map of the area of the excavation clearly marking the location of all known utilities or other obstructions. If the work activity covered by the Digging Permit request also requires a utility outage, a separate request for the outage shall be submitted in accordance with the paragraph entitled CONNECTIONS TO EXISTING UTILITIES.

1.10.3 Preparation of Requests for Digging Permits

Prior to submitting a request for a Digging Permit, the Contractor shall carefully review the area to be excavated to determine the location of existing utilities and other obstructions. The Contractor will review available drawings and will conduct a visual inspection of the site. The

Contractor will utilize underground utility detecting devices such as metal and cable detectors to determine the location of existing utilities. All utility lines found shall be clearly flagged or marked and the location of the utility shall be shown on the drawing to be submitted with the request for Digging Permit.

****
NOTE: The first sentence may only be used if specific permission is received from the customer and/or the responsible field construction office.
****

1.10.4 Existing Underground Utilities

[The Contractor is provided notice that existing utilities are present in the construction area which may not be shown, or are inaccurately shown, on the base as-built drawings and the contract drawings.] The Contractor shall exercise utmost care in researching locations of existing utilities and reducing damage to existing utilities. Any utilities damaged by the Contractor shall be promptly repaired by the Contractor. The Contracting Officer will review and approve any proposed repairs. Any damage to existing utilities will be immediately reported to the Contracting Officer and the [Base] [_____].

****
Note: This clause shall be coordinated with EC-M and the responsible field office or the customer. It may be edited as applicable. The Specification Engineer must determine if sufficient justification exists to impose limitations upon the construction Contractor restricting his work during the workweek, weekend, during critical times such as periods of peak demand, or on certain calendar dates such as on holidays, military exercises or other known events.
****

1.11 CONNECTIONS TO EXISTING UTILITIES

1.11.1 General

Any outage of any utility service shall be requested in writing at least fifteen (15) days in advance of the date requested for the commencement of the outage. The Contractor shall provide a request, detailing the type of outage needed (water, sewer, electrical, steam, etc.), the time needed to perform the work, the reason for the outage, and the known affected facilities. The Contracting Officer shall be contacted prior to the outage to confirm the time and date. If the Contractor fails to initiate work at the approved time, the Contracting Officer may cancel the approved outage and may direct the Contractor to resubmit a new request. No part of the time lost due to the Contractors failure to properly schedule an outage shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.11.1.1 Performance of Work During Non-Standard Hours

To minimize outage impact to the mission of the [Base] [_____], all outages shall be scheduled on weekends or from 2100 - 0530 hours on duty days. The period proposed for performance of the outage shall include sufficient contingencies to preclude impact to the peak working hours 0530 - 1800

hours during the work week.]

1.11.1.2 Exterior Night Lighting

Exterior night lighting shall be provided in conformance with EM-385-1-1 entitled Safety and Health Requirements Manual.

1.11.2 Existing Underground Utilities

****
NOTE: The first sentence may only be used if specific permission is received from the customer and/or the responsible field construction office.
****

[The Contractor is provided notice that existing utilities may be present in the construction area which may not be shown, or are inaccurately shown, on the base as-built drawings.] The Contractor shall exercise the utmost care in researching locations of existing utility lines by implementing control measures to eliminate, or reduce to a level acceptable to the Contracting Officer, the chance of damaging or destroying existing utilities.

1.11.2.1 Use of Underground Utility Detecting Device

Prior to any excavation, a metal and/or cable detecting device shall be used along the route of the excavation. All underground utilities discovered by this method will be flagged a minimum distance of one-half (1/2) meter on each side of the location.

1.11.2.2 Hand Excavation

Hand excavation methods and special supervisory care shall be used between any flagged markers, in areas of known or suspected hazards, and in areas known or suspected to have multiple and/or concentrated utility lines or connections.

1.11.3 Repair of Damaged Utilities

The Contractor shall be responsible to repair any utilities damaged by him. The method of repair and schedule for performance of the repair shall be coordinated with, and subject to the approval of, the Contracting Officer. The repair work and any temporary work required to keep the system operational while repairs are being completed, shall be performed at no cost to the Government.

****
NOTE: This clause WATER has two (2) versions. Use of this clause requires coordination with EC-M and the responsible field office. Edit the brackets. This clause may be edited to meet the requirements of the project.
****

1.12 WATER (CONTRACTOR PROVIDED)

The Contractor shall provide and maintain water at his own expense for his use for construction and domestic consumption, and shall install and maintain necessary supply connections and piping for same, but only at such

locations and in such manner as may be approved by the Contracting Officer. [Water required for final testing, adjusting and balancing of HVAC systems will be furnished by the Government.] Before final acceptance of systems, or facilities, all temporary connections and piping installed by the Contractor shall be removed at his expense in a manner satisfactory to the Contracting Officer.

****
Note: This clause WATER has two (2) versions. Use of this clause requires coordination with EC-M and the responsible field office and customer. Edit the brackets. This clause may be edited to meet the requirements of the project.
****

1.13 WATER (GOVERNMENT PROVIDED)

The Government will make [____] gallons per day, of water available to the Contractor from existing outlets and supplies. Water usage in excess of this amount will be billed to the Contractor at a rate of [____] per thousand gallons. The Contractor shall carefully conserve all water furnished without charge. The Contractor shall install and maintain all necessary temporary connections and distribution lines at his own expense in a workmanlike manner satisfactory to the Contracting Officer. When necessary to determine charges, the Contractor shall install all meters required to measure the amount of water used, and shall remove same prior to final acceptance of the construction.

****
Note: The clause ELECTRICITY has two (2) versions. Use of this clause requires coordination with EC-M and the responsible field office. Edit the brackets. This clause may be edited to meet the requirements of the project.
****

1.14 ELECTRICITY (CONTRACTOR PROVIDED)

Electrical service is not available for use under this contract, therefore all electric current required by the Contractor shall be the responsibility of the Contractor, furnished at his own expense. [Electricity required for final testing systems will be furnished by the Government.] [The Government will provide permanent high voltage electricity to a point indicated on the drawings for use by the Contractor in the performance of final testing of systems. The means of doing so, such as by temporary distribution systems, shall be the responsibility of the Contractor.] All temporary connections for electricity shall be subject to the approval of the Contracting Officer and shall comply with Corps of Engineers manual EM 385-1-1 entitled Safety and Health Requirements Manual. All temporary lines shall be furnished, installed, connected and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer. Before final acceptance of systems, or facilities, all temporary connections installed by the Contractor shall be removed at his expense in a manner satisfactory to the Contracting Officer.

****
Note: The clause ELECTRICITY has two (2) versions. Use of this clause requires coordination with EC-M and the responsible field office. Edit the

brackets. This clause may be edited to meet the requirements of the project.
****

1.15 ELECTRICITY (GOVERNMENT PROVIDED)

The Government will make electricity available to the Contractor from existing outlets and supplies, [____] KWH per day at [____] volts/cycles. The Contractor shall carefully conserve all electricity furnished without charge. Electrical usage in excess of the amount stated, will be billed to the Contractor at a rate of [____] KWH. The Contractor shall install and maintain all necessary temporary connections and distribution lines at his own expense in a workmanlike manner in compliance with Corps of Engineers manual EM 385-1-1 entitled Safety and Health Requirements Manual and with the approval of the Contracting Officer. The Contractor shall install all meters required to measure the amount of electricity used, and shall remove same prior to final acceptance of the construction.

****
Note: Edit to meet the requirements of the project. Blanks require name of country. Paragraph 1.16.3 requires information about host country requirements. DO NOT USE CLAUSE 1.16 WHEN BLASTING OR EXPLOSIVES ARE NOT PERMITTED IN THE PROJECT.
****

1.16 USE OF EXPLOSIVES

The Contractor shall make necessary arrangements as may be required by applicable [_______] codes, rules, regulations and laws and shall be responsible for compliance therewith for all phases of blasting operations. When blasting is required for removal of rock or other material, the Contractor shall notify the Contracting Officer prior to application for any use of explosives and take all necessary precautions for the protection of individuals and property exposed to his operation.

1.16.1 Handling, Storage, and Use of Explosives

The handling, storage, and use of explosives shall be governed by the applicable provisions of the following: the "BLASTING" section of the Corps of Engineers Manual EM 385-1-1, entitled Safety and Health Requirements Manual, a copy of which may be obtained from the Contracting Officer's Representative at the jobsite, and Technical Section 02201 entitled BLASTING

1.16.2 Blasting Permits

The following is provided for the Contractor's information, and the Government assumes no liability for changes that may be imposed by the [___________] Government:

****
The following paragraphs are applicable to projects within Saudi Arabia only. It's applicability to other Host Nations within TAC's Area of Operations should be researched and verified prior to use.
****

1.16.3 Ministry Letter

Based on advise received from the Ministry of Interior, a letter that provides the following information shall be furnished to the Ministry:

a. Reason for a Blasting Permit

b. A copy of the agreement that authorizes the project.

c. Plans, general in nature, that show what is to be built.

d. A well defined map of the project area and the surrounding areas that require excavation by explosives identified.

e. Dates that blasting is to commence, cease, and phasing if applicable.

f. Quantities of explosives and caps.

g. Name and qualifications of Blasting Engineer/Powderman on the project.

1.16.4 Local Police

The Police of the locality will be sent a letter of approval by the Minister of Interior through the general security Office. However, coordination should commence with the local Police while the letter is being prepared for the Minister of Interior since there may be some type of local restrictions that require relief by a higher authority. Once a letter of approval is received, the local Police will subsequently issue a Blasting Permit.

1.16.5 Transportation and Guarding

Transportation and guarding of explosives will be provided by the local Police. In the Riyadh area, the contractor will transport the explosives, with Police escort, to his project.

1.16.6 Explosive Storage

If the quantity of explosives is greater than ten (10) tons, the Contractor shall be required to design and build an acceptable storage container. Approval for the design and constructed storage container must be obtained from the local Police. The distance the storage container must be located from inhabited area shall be coordinated with and approved by the local Police but in no case shall it be less than indicated in the contract.

1.16.7 Haj

Transportation of explosives and blasting are forbidden during Haj (the Moslem pilgrimage to Mecca) by order of the Minister of Interior.

1.17 NOT USED

1.18 WORK OUTSIDE REGULAR HOURS

If the Contractor desires to carry on work outside regular [base] [_____] duty hours, or on holidays (including the following U.S. holidays: New Year's Day, Martin Luther King Jr's Birthday, George Washington's Birthday,

Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving and Christmas), he shall submit an application to the Contracting Officer. The Contractor shall allow ample time to enable satisfactory arrangements to be made by the Government for inspecting the work in progress. At night, exterior lighting shall be provided in conformance with EM-385-1-1 entitled "Safety and Health Requirements Manual".

****
Note: May be edited to meet the requirements of the project.
****

1.19 SCHEDULING OF WORK IN EXISTING FACILITIES

As soon as practicable, but in any event not later than [thirty (30)] [_____] calendar days after receipt of Notice to Proceed, the Contractor shall meet in conference with the Contracting Officer, or his duly authorized representatives, to discuss and develop mutual understanding relative to the scheduling of work in and access to the existing facilities where work has to be performed under this contract, so that the Contractor's proposed construction schedule is coordinated with the operating and security requirements of the installation.

****
Note: Edit to meet the requirements of the project. When using this clause, the list of facilities and the dates they are to be provided are required from EC-M.
****

1.20 FACILITIES TO BE FURNISHED BY THE GOVERNMENT

Facilities listed hereinafter will be furnished by the Government for the Contractor's use, on the available date listed. The Contractor shall provide all maintenance janitorial services and repair of the facilities. Upon completion of the contract or at such time as the Contractor has no further use of the facilities, each respective facility shall be repaired and painted and returned to the Government in like new condition except for normal wear and tear. There will be no separate payment made for costs in connection with the use, and maintenance and repair of these facilities. All such costs should be included in the Contractor's proposed overhead percentage or elsewhere as deemed appropriate by the contractor.

Facilities	Date(s) to be provided

****
Note: Edit to meet the requirements of the project. When this clause is not used, delete Appendix "B" from the index.

In the first blank insert location where Government Furnished Property will be turned over to the Contractor. Delete the requirements in parentheses in the second sentence, when the GFP is to be furnished the Contractor at the "jobsite" and so indicate in the first blank space. In the second blank insert the proper date using the following schedule: For projects at least 360 but not

exceeding 810 total calendar days scheduled construction completion time insert "30 calendar days" in the second blank.

For projects greater than 810 but not exceeding 1260 total calendar days scheduled construction completion time insert "45 calendar days" in the second blank.

For projects greater than 1260 but not exceeding 1800 total calendar days scheduled construction completion time insert "60 calendar days" in the second blank.

In the last sentence insert the first parenthetical sentence or the second in accordance with the following. If the acquisition cost of GFP cost is $50,000 or more use the first parenthetical sentence. If the acquisition cost is less than $50,000 use the second parenthetical sentence.

****

1.21 IDENTIFICATION OF GOVERNMENT FURNISHED PROPERTY

The Government will furnish to the Contractor the property listed in Appendix "B", attached to these Special Clauses, to be incorporated or installed in the work or used in its performance. Such property will be furnished to the Contractor at [_____] and the Contractor shall be required to accept delivery when made, (process the items thru customs, load and transport the property to the jobsite) unload the property at the jobsite, store, and safeguard such property all at his own expense. The Contractor shall submit his proposed plan, showing type of facilities, location for the storage, and handling procedures of Government Furnished Property for the Contracting Officer's approval, within [_____] days after Notice to Proceed. All such property will be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated herein. The Contractor shall verify jointly with a Government Representative the quality and condition of such Government Furnished Property when delivered to him, acknowledge receipt thereof in writing to the Contracting Officer, and in case of damage to or shortage of such property, he shall within seventy-two (72) hours report in writing such damage or shortage to the Contracting Officer. Any damage or shortage not so reported shall be for the account of the Contractor, unless it can be conclusively shown to have occurred as the result of a willful or negligent act or a failure to act by the Government, its employees, or its agents. The Government will make every reasonable effort to make delivery at the time scheduled in the Contractor's approved schedule developed in Section [01320] [01321] PROJECT SCHEDULE, of the General Requirements, however delivery will be no later than the number of days as shown in Appendix "B", from the time of Notice to Proceed (NTP) for the work under this contract. [Contract Clause 52.245-2 entitled GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS)] [Contract Clause 52.245-4 entitled GOVERNMENT-FURNISHED PROPERTY (SHORT FORM)] applies to this contract.

****

NOTE: SAMPLE

APPENDIX "B"

IDENTIFICATION OF GOVERNMENT FURNISHED PROPERTY

1. The following listed property will be furnished to the Contractor in accordance with SC-17. Delivery will be made at the time specified. Items will normally arrive crated, and the Contractor shall be responsible for uncrating and normal assembly of the items in accordance with the manufacturer's standard assembly instructions.

Quantity	Item	Description	Days from Notice to Proceed
1		3,000 A automatic	20 days
1		750 kW generator	20 days
229		60mm Fence Posts	20 days

SAMPLE

****

****

NOTE: Use of this clause requires input from EC-M. Prior to publishing written approval from the Executive Office through ECT-M is required. If the Contractor will be required to provide computer hardware/software for use by the Government, IMO will need be consulted with to ensure that the proposed specifications provide "State-of-the-art-hardware/software" compatible with the Government needs. Under NO circumstances should hardware/software requirements from a previous project be used without prior approval of IMO.

****

1.22 SPECIAL FACILITIES AND SERVICES TO BE FURNISHED BY THE CONTRACTOR

The Contractor shall furnish the facilities and services listed in this clause for Corps of Engineers personnel and other persons as designated by the Contracting Officer. All facilities, furnishings, materials, and equipment shall be new or like new when furnished at the site. The Contractor shall fully maintain and repair all facilities, furnishings and equipment listed below. All facilities furnished and/or installed by the Contractor under this clause shall remain the property of the [Contractor] [Government] [___________]. All costs for procuring, transporting, installing and replacing all facilities, furnishings, materials, vehicles and equipment shall be included in the contract price for "Mobilization and Demobilization", and payment will be made in accordance with Mobilization and Demobilization payment item of the Proposal Schedule.

(Add facilities, list of services and date to be provided)

1.23 NOT USED

1.24 RESIDENT MANAGEMENT SYSTEM (RMS)

****

NOTE TO THE SPECIFICATION WRITER for paragraph 1.24: The use of RMS for upward reporting has been mandated by USACE as part of the PMBP and P-2 Process. Exceptions to use this clause require the approval of the CETAC-EC-M RMS System Administrator (Mr. Russell Reid).

Use of Section 01321 PROJECT SCHEDULE creates a contractual conflict when used in conjunction with this Special Clause. It also negates many of the automated upward reporting features built into the RMS software system. Section 01321 PROJECT SCHEDULE shall not be used without prior approval of the CETAC-EC-M RMS System Administrator. If section 01321 is approved for use, the RMS clause should either be deleted or extensively re-written to reflect the limitations imposed by a Horizontal Bar Chart. This editing includes at minimum paragraph 1.24.4.1 entitled GOVERNMENT FURNISHED MODULE ELEMENTS, paragraph 1.24.4.3 entitled PROJECT SCHEDULE, and paragraph 1.24.9 CONTRACTOR PARTIAL PAYMENT ESTIMATES.

For additional information, the RMS home page may be accessed at http://winrms.com or http://216.86.193.60/home/html . This web site has both a RMS Website - Government and a RMS Website - Contractor hot link. No login or password is required for either hot link.

There are three (3) primary UFGS being used by the U.S. Army Corps of Engineers that assist in specifying and using the RMS and QCS programs. The specification sections of interest to the RMS and QCS program are as follows:

1. 01312A--Quality Control System (QCS)

2. 01320A--Project Schedule

3. 01451A--Contractor Quality Control

****

1.24.1 General

The Resident Management System is an automated quality management and contract administration system that provides an efficient method to plan, accomplish, and control project management by integrating job specific requirements, corporate technical knowledge, and management policies. RMS controls the following activities:

a. Project Planning.

b. Milestone Events.

c. Contract Administration.

d. Progress Payments.

e. Correspondence.

f. Contract Schedule.

g. Quality Control.

h. Submittal Register.

i. Accident Prevention.

j. Management Reporting.

1.24.2 Computer Software to be Furnished by the Government

The software program modules required for Contractor use will be provided by the Government to the Contractor on the approximate date listed.

RMS Version:	Date:
[(Contractor Quality Control System (QCS) Module)] [_____ _____]	[Ten (10) work days after receipt of Notice to Proceed] [_____ _____]

New versions of the Contractor's Module may be provided during the course of the contract, and the contractor shall use the new modules when provided. The data files shall be converted to the new modules at the same time by the Contracting Officer.

1.24.3 RMS User Guides and Support

The RMS Center is maintained to assist the Contractor’s field engineers and office personnel perform their duties by providing expertise to plan, accomplish, and control the daily technical and administrative functions of construction projects managed by the U.S. Army Corps of Engineers. Points of contact, available guides, software updates and assistance with the associated Quality Control System (QCS) program may be obtained from the RMS home page located at the following url: http://winrms.com or http://216.86.193.60/home/html . No login or password is required.

1.24.4 Contractor Responsibility

The Contractor is responsible for establishing, maintaining and updating the provided Contractors Programming. The RMS shall be prepared and maintained at the work site. The Contractor shall utilize a Government furnished Contractor Quality Control System (QCS) Program. The Program includes a QC Daily Reports form which must also be used. This form may be in addition to other Contractor desired reporting forms. However, all other such reporting forms shall be consolidated into this one Government specified QC Daily Reports Form.

1.24.4.1 Government-Furnished Module Elements

The Contractor shall also be required to complete Government-Furnished Module elements which include, but are not limited to, subcontractor codes, planned cumulative progress earnings, subcontractor information showing

trade, name, address, point-of-contact, and insurance expiration dates, definable features of work, pay activity and activity information, required Quality Control tests tied to individual activities, planned Customer/User Training tied to specific specification paragraphs and Contractor activities, Installed Property Listing, Transfer Property Listing and Submittal information relating to specification section, description, activity number, review period and expected procurement period. The sum of all activity values shall equal the contract amount (inclusive of all modifications), and all Proposal Schedule Items, Options and Additives shall be separately identified, in accordance with Section 00010 entitled SUPPLIES OR SERVICES AND PRICES/COSTS. Proposal Schedule items may include multiple activities, but activities may only be assigned to one such Proposal Schedule item.

1.24.4.2 Quality Assurance Comments

During the course of the contract, the Contractor will receive various quality assurance comments from the Government that will reflect corrections needed to Contractor activities or reflect outstanding or future items needing the attention of the Contractor. The Contractor shall acknowledge receipt of these comments by a specific sequential number reference on his QC Daily Report. The Contractors QC daily reports shall also reflect the scheduled and actual dates when these items are completed or corrected to permit Government verification.

1.24.4.3 Project Schedule

The Project Schedule provided by the Contractor in compliance with Section 01320 entitled PROJECT SCHEDULE, of the Technical Provisions, shall be fully compatible with the RMS System. The RMS system is compatible with the Standard Data Exchange Format(SDEF)scheduling systems. It is recommended that one of the following software programs be utilized: Approach (PPMS 30,000), AlderGraf Systems (AlderGraf), Pinnell-Busch (PMS-80), Primavera Systems, Welcome Technologies (Open Plan). The Contractor's schedule system shall include, as specific and separate activities, all three (3) Phase Inspection meetings, all Operation and Maintenance (O&M) Manuals, instructions and training for operation and maintenance, Contractor furnished spare parts, submittals, all test plans of electrical and mechanical equipment or systems that require validation testing or instructions to Government Representatives, and all CQC completion inspections.

1.24.5 Payment

Separate payment will not be made for maintaining and updating the RMS System, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Proposal Schedule. Submission of all required modules shall be completed to the satisfaction of the Contracting Officer prior to any contract payment (except for Bonds, Insurance and/or Mobilization, as approved by the Contracting Officer) and shall be updated as required. The Contracting Officer may elect to withhold any and all partial payments until the submissions are satisfactory.

1.24.6 RMS Implementation Plan

The Contractor shall furnish for review and acceptance by the Government, not later than twenty (20)calender days after receipt of Notice To Proceed, the plan for implementation of the RMS System.

1.24.6.1 Quality Control (QC)/Quality Assurance (QA) Mutual Understanding Meeting

The Contractor shall prepare in outline form, a proposed RMS implementation plan which shall be discussed at the pre-construction conference. Detailed discussions including the Contractor's approved RMS implementation plan shall be made a supplemental part of the Quality Control (QC)/Quality Assurance (QA) mutual understanding meeting. During this supplemental meeting the Government will provide an overview of the RMS system. At a minimum, Contractor personnel responsible for the following shall be in attendance: Contractor Quality Control, Project Schedule, Submittals, Partial Payment Estimates, Subcontracting, Operation and Maintenance Training, and installed property and equipment.

1.24.6.2 RMS Implementation Plan

At a minimum, the RMS plan shall include the following:

a. A description of the RMS team, including a chart showing lines of authority, duties, and responsibilities.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a RMS function.

c. Procedures for joint Government/Contractor review and verification of proposed input. This shall include certification from the Contractor that the submitted input is accurate, current, and in strict conformance to all contract requirements.

d. Proposed procedures to ensure compatibility of the existing Government system with the Contractors proposed Hardware and Software.

e. Proposed controls, instructions and procedures to ensure smooth and effective transfer of electronic data.

f. Proposed reporting procedures, including reporting formats, techniques and equipment.

1.24.6.3 Acceptance of Plan

Approval of the Contractor's proposed plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his RMS Plan and operations including but not necessarily limited to modifications to hardware, software, and removal of personnel, as necessary, to obtain the quality and efficiency as specified.

1.24.6.4 Notification of Changes

After acceptance of the RMS plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

1.24.7 Personnel Requirements

The requirements for the RMS organization are a RMS System Manager and sufficient number of additional qualified personnel to ensure contract compliance.

1.24.7.1 RMS Manager

The Contractor shall identify as RMS Manager an individual within the onsite work organization who shall be responsible for overall management of RMS and have the authority to act in all RMS matters for the Contractor. The RMS Manager shall be [a graduate engineer, graduate architect, or a graduate of computer science, with a minimum of [_____] years construction experience. This RMS Manager shall be physically located on-site and shall be employed by the prime Contractor. The RMS Manager shall be [assigned no other duties] [assigned as RMS Manager but may have other duties]. An alternate for the RMS Manager shall be identified in the plan to serve in the event of the RMS Manager's absence. The requirements for the alternate shall be the same as for the designated RMS Manager.

1.24.7.2 RMS Staff

The Contractor's RMS staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The RMS staff shall be subject to acceptance by the Contracting Officer.

1.24.7.3 RMS Office Facilities and Equipment

The Contractor shall provide adequate office space, computers, and other resources as necessary to maintain an effective and fully functional RMS organization.

****

NOTE TO SPECIFICATION WRITER FOR PARAGRAPH 1.24.8: The computer hardware/software required for operation of the Contractor's Quality Control System (QCS) module is subject to change as upgrades become available. Although the requirements listed below are valid as of August 2004, they may or may not be valid on the date when your specific project specification needs be written. The specification writer shall consult with IMO to ensure that the proposed specifications provide "State-of-the-art-hardware/software compatible with the Government's RMS requirements. Under NO circumstances should hardware/software requirements from a previous project be used without prior approval of IMO.

QCS System Hardware Requirements

- **IBM-compatible PC with 500 MHz Pentium or higher processor**
- **128+ MB RAM for workstation / 256+ MB RAM for server.**

- **1 GB hard drive disk space for sole use by the QCS system.**
- **3-1/2 inch high-density floppy drive.**
- **Compact Disk (CD) Reader 8x speed or higher.**
- **SVGA or higher resolution monitor (1024x768, 256 colors).**
- **Mouse or other pointing device.**
- **Windows compatible printer. (Laser printer must have 4 MB+ of RAM).**
- **Connection to the Internet, minimum 56k BPS.**

QCS System Software Requirements

- **MS Windows 98, ME, NT, or 2000.**
- **Word Processing software compatible with MS Word 97 or newer.**
- **Latest version of: Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher.**
- **Electronic mail (E-mail) MAPI compatible.**
- **Virus protection software that is regularly upgraded with all issued manufacturer's updates.**

RMS Server Minimum Requirements

Hardware:

- **IBM-compatible PC with 600 MHz Pentium or higher processor**
- **256+ MB RAM**
- **1 GB free disk space**
- **3 ½ inch high-density floppy drive**
- **Compact Disk (CD) Reader 8x speed or higher**

TCP/IP Network/Internet Connection

Software:

- **Windows NT or 2000**
- **Oracle 8i Server**

Personnel:

. Oracle Database Administrator (DBA)

RMS Workstation Minimum Requirements

Hardware:

. IBM-compatible PC with 500 MHz Pentium or higher processor 128+ MB RAM for workstation 100 MB free disk space 3 ½ inch high-density floppy drive Compact Disk (CD) Reader 8x speed or higher SVGA or higher resolution monitor (1024x768, 256 colors)

. Mouse or other pointing device

. Windows compatible printer. (Laser printer must have 4 MB+ of RAM)

TCP/IP Network/Internet Connection Software

. MS Windows 98, ME, NT, or 2000

. Oracle 8i Client

. Word Processing software compatible with MS Word 97 or newer

. Latest version of Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher

. Electronic mail (e-mail) MAPI compatible

****

1.24.8 Hardware and Software

The Contractor shall submit all of the RMS input data and updates required by the Contractor's Quality Control Module of the Government's Resident Management System (RMS).

QCS System Hardware Requirements

[_____]

QCS System Software Requirements

[_____]

RMS Server Minimum Requirements

[_____]

RMS Workstation Minimum Requirements

[_____]

State of the Art Anti-Virus Software

The Contractor's computer software system shall be protected by a State-of-the-Art Anti-Virus protection system which shall be maintained and upgraded with all issued manufacturer's updates throughout the life of the contract period.

1.24.9 Notification of Noncompliance

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this clause. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.24.10 Contractor Partial Payment Estimates

The RMS System shall be used for preparing, approving, and printing the Contractors partial payment estimate.

1.24.10.1 Monthly Coordination Meeting

The RMS System shall be completely updated at least monthly. Specific calendar dates for submission of same shall be determined by the Contracting Officer. Prior to submitting a partial payment estimate, the Contractor shall schedule a coordination meeting with the Government to verify the status of activities proposed for payment. This meeting shall evaluate at a minimum the following:

a. Activities proposed for payment.

b. Total dollar value and previous earnings of each activity proposed for payment.

c. Percent or quantity proposed for payment by the Contractor.

d. Percent or quantity approved for payment by the Government.

e. Verification of activities started, on-going, or completed.

f. Verification that required "Three Phase-Inspections" have been conducted satisfactorily.

g. Verification that all Accident Prevention/Safety and Construction deficiencies have been noted and corrected to the satisfaction of the Contracting Officer.

h. Verification that there are no outstanding submittals.

i. Verification that CQC testing has been performed.

j. Verification that a daily record of as-built conditions is being maintained.

k. Verification that salvage material has been turned over.

l. Verification that Government furnished property has been transferred.

m. Verification that Contractor Requests for Information (RFI's) have been submitted.

n. Verification that installed property and equipment information is current in RMS. The RMS database shall include all information on the property and equipment at the time of installation of each item.

o. Verification of other required items as noted on the approved RMS Implementation Plan.

1.24.10.2 Re-submission of Partial Payment Estimates

Prior to requesting a partial payment estimate, the Contractor is required to submit and receive approval, for all elements of the RMS that require updating. In the event that any data is missing, unavailable, incorrect, or determined by the Contracting Officer to portray unrealistic parameters or misrepresent actual conditions, the Contracting Officer may require the Contractor to correct, revise and resubmit the required RMS input or status information, prior to accepting any partial payment estimate for evaluation. Any payment amount previously paid on the basis of inaccurate or incorrect information submitted by the Contractor, may be adjusted by the Contracting Officer in subsequent payment estimates. If the Contractor fails to submit the required updates, or transfers the information in a fragmented or piecemeal fashion, the Contracting Officer may, in addition to other remedies provided under this contract, withhold approval of all or any portion of the partial payment estimate until a complete RMS update has been provided and approved.

****

NOTE 1: This clause has two (2) versions. This version requires the Contractor to submit finalized AS-BUILT drawings to the Government. This clause may be edited to meet the requirements of the project.

Note 2: SC 1.25.3 "b" and "e" requires that the Contractor prepare "As-Builts" in an editable fashion using Bently Microstation CADD. The field questioned whether the Contractor should be allowed to submit an electronic drawing sheet file where the master file has several reference file attachments. This issue is being reviewed/staffed within EC-T.

****

1.25 PREPARATION OF AS-BUILT DRAWINGS (CONTRACTOR)

1.25.1 General

Upon completion of each facility under this contract, the Contractor shall prepare and furnish as-built drawings to the Contracting Officer. The as-built drawings shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract set of drawings, and all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the

work, including all additional work not appearing on the contract drawings, and all changes which are made after any final inspection of the contract work. In the event the Contractor accomplished additional work which changes the as-built conditions of the facility after submission of the final as-built drawings, the Contractor shall furnish revised and/or additional drawings and drawing files as required to depict final as-built conditions. The requirements for these additional drawings shall be the same as for the as-built drawings specified in this paragraph.

1.25.2 Daily Record of As-Built Conditions

1.25.2.1 General

The Contractor shall maintain a full size set of contract drawings for depicting a daily record of as-built conditions. These drawings shall be maintained in a current, reproducible condition at all times during the entire contract period and shall be readily available for review by the Contracting Officer's Representative at all times. The as-built drawings shall be updated daily by the Contractor showing all changes from the contract plans which are made in the work, or additional information which might be uncovered in the course of construction. This information shall be recorded on the prints accurately and neatly by means of details and notes. Changes and additional information marked on the contract plans should be made in red or green color for highlighting purposes.

1.25.2.2 Certification Prior to Submission of Partial Payment Estimates

In addition to the requirements of 52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS, the contractor shall provide to the Government the following certification:

> I certify that the As-Builts have been reviewed in detail and that a daily record of As-Built conditions is being maintained in strict conformance with section 01060 SC 1.25 PREPARATION OF AS-BUILT DRAWINGS except as otherwise stated.

1.25.2.3 Daily Record of As-Builts

The daily record of As-Built conditions shall include but not necessarily be limited to the following:

a. All necessary information for As-Built conditions including proprietary materials, equipment, system, and patented processes, shall be transferred from the appropriate shop drawings and digitally incorporated into the As-Built drawings in the Computer Assisted Design and Drafting (CADD) format specified by this clause. Under NO circumstances will shop drawings and submittals approved by the Government be used to supplant and/or supplement the requirements of this clause. As-Built drawings that substitute shop drawings/submittals for original CADD files will be returned for resubmission.

b. The location and description of any utility lines or other installations of any kind or description known to exist within the construction area. The location includes dimensions to permanent features.

c. The location and dimensions of any changes within the building or structure, and the accurate location and dimension of all

underground utilities and facilities.

d. Correct grade or alignment of roads, structures, or utilities if any changes were made from contract plans.

e. Correct elevations if changes were made in site grading.

f. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

g. The topography and grades of all drainage installed or affected as part of the project construction.

h. All changes or modifications of the original design including those which result from the final inspection.

i. Where contract drawings or specifications allow options, only the option actually used in the construction shall be shown on the as-built drawings. The option not used shall be deleted.

****

NOTE: NOTE TO SPECIFICATION WRITER for paragraphs 1.25.3 and 1.25.4: TAC has been mandated to use Bently MicroStation software. Some of TAC's customers and Contractor's prefer to use the AUTOCAD software program. According to TAC's CADD Coordinator, attempts to translate (or convert) files from an AutoCad program to Bently MicroStation files frequently causes problems to occur with line weights, line styles, fonts and causes other negative impact if not performed knowledgeably. As such, under NO circumstances should the Contractor be allowed to translate (or convert) files from an AutoCad program to Bently MicroStation or vice versa. All translations and conversations should be coordinated with and subsequently performed by, the TAC CADD staff.

On Design-Bid-Build contracts, the Contractor shall be mandated to submit the As-Builts in the same software the design drawings were created in e.g., if the design drawings were created in-house using Bently MicroStation then the Contractor shall submit the As-Builts in Bently MicroStation . If the customer desires that the As-Builts be prepared in AutoCad, then TAC's internal CADD staff (not the Contractor) must be tasked to make the translation from Bently MicroStation (*.dgn) files into AutCad format prior to submission to TAC's customer.

On Design-Build contracts, it is the Design-Build Contractor not TAC who will prepare the design drawings. In such cases, if TAC's customer desires that the As-Builts be prepared in AutoCad, it is in TAC's best interest to mandate this requirement upon the Design-Build Contractor.

****

1.25.3 Computer Assisted Design and Drafting (CADD) Software

Digital As-Built drawing files shall be prepared in the format native to the latest version in common use of [Bently MicroStation] [AutoCad] COMPUTER ASSISTED DESIGN AND DRAFTING (CADD) software.

1.25.4 Translated or Converted Files - Drawing Files

Under NO circumstances shall the Contractor translate (or convert) the digital As-Built files from one CADD software program to another (e.g., from Bently MicroStation to Autocad). As-Built drawings that show signs of translation or conversion will be returned for resubmission.

1.25.5 Preliminary As-Built Drawings Submission

One (1) copy of the preliminary as-built marked prints shall be delivered to the Contracting Officer at the time of final inspection of each facility for review and approval. Changes and additional information marked on the contract plans should be made in red or green color for highlighting purposes. If upon review of the preliminary as-built drawings, errors or omissions are found, the drawings will be returned to the Contractor for corrections. The Contractor shall complete the corrections in red or green color, and return the as-built marked prints to the Contracting Officer within ten (10) calendar days.

1.25.6 Final As-Built Drawings Submission

The Contractor shall update the digital contract drawing files to reflect the approved final as-built conditions and shall furnish those updated drawing files and plots of the final as-built drawings to the Contracting Officer.

a. Only personnel proficient in the use of Computer Assisted Design and Drafting (CADD) for the preparation of drawings shall be employed to modify the contract drawing files or prepare new drawing files.

b. Existing digital drawing files shall be updated to reflect as-built conditions. Independent drawing files containing only as-built information are not acceptable. The modifications shall be made by additions and deletions to the original drawing files, and where additional drawings are necessary, they shall be developed in individual digital files for each new drawing. All additions and corrections to the contract drawing files shall be clear and legible, and shall match the adjacent existing line work and text in type, size, weight, and style. New or revised information placed into the design files shall be placed on the levels and in the colors used for placement of the corresponding initial data. Similarly, the drawing size, title block, and general format of new drawings shall be consistent with the format established by the original drawings.

c. In the preparation of as-built drawings, the Contractor shall remove "Bubbles" used by the Government to highlight drawing changes made during design/construction. Triangles associated with those earlier drawing changes shall be left on the drawings

and the Contractor shall not add triangles to designate modifications associated with representation of the as-built condition. The revision block identification of the drawing modifications shall be left intact and the date of completion and the words "REVISED AS-BUILT" shall be placed in the revision block above the latest existing notation. Each drawing shall have the words "DRAWING OF WORK AS-BUILT" in letters 4.5 mm (3/16") high placed below the drawing title portion of the drawing title block; between the border and the trim line.

d. The Contractor shall check all final as-built drawing files for accuracy, conformance to the initial drawing scheme and the above instructions. The Contracting Officer will review the drawings and drawing files for conformance to these standards.

e. Digital drawing files shall be furnished to the Contracting Officer on CD-ROM or other media and format as approved by the Contracting Officer. A transmittal sheet containing the name of the files, the date of creation, the CD-ROM number, and a short description of the contents, shall accompany the CD-ROM.

f. A sample drawing shall be furnished to the Contracting Officer before delivery of final as-built drawings as a test to demonstrate compliance with the above instructions and file format compatibility with the described CADD software.

g. One (1) complete set of the updated final Record Copy digital drawing files and one (1) paper plot or copy of the final Record drawings shall be delivered to the Contracting Officer within 30 calendar days of approval of the preliminary as-built drawings. If upon review of the final as-built drawings, errors or omissions are found, the drawings and drawing files will be returned to the Contractor for corrections. The Contractor shall complete the corrections and return both the digital files and the as-built prints to the Contracting Officer within ten (10) calendar days.

****
NOTE: This clause has two (2) versions. This version requires the Contractor to prepare annotated drawings in "red" or "green" for final preparation of the AS-BUILTS by others. Use of this version requires PD-T approval. When obtained, this clause may be edited to meet the requirements of the project.
****

1.26 PREPARATION OF AS-BUILT DRAWINGS (GOVERNMENT)

1.26.1 General

The Contractor shall maintain a full size set of contract drawings for depicting a daily record of as-built conditions. These drawings shall be maintained in a current, reproducible condition at all times during the entire contract period and shall be readily available for review by the Contracting Officer's Representative at all times. The as-built drawings shall be updated daily by the Contractor showing all changes from the contract plans which are made in the work, or additional information which might be uncovered in the course of construction. This information shall be recorded on the prints accurately and neatly by means of details and notes. Changes and additional information marked on the contract plans

should be made in red or green color for highlighting purposes. The drawings shall show the following information, but not be limited thereto:

a. The location and description of any utility lines or other installations of any kind or description known to exist within the construction area. The location includes dimensions to permanent features.

b. The location and dimensions of any changes within the building or structure, and the accurate location and dimension of all underground utilities and facilities.

c. Correct grade or alignment of roads, structures, or utilities if any changes were made from contract plans.

d. Correct elevations if changes were made in site grading.

e. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

f. The topography and grades of all drainage installed or affected as part of the project construction.

g. All changes or modifications of the original design including those which result from the final inspection.

h. Where contract drawings or specifications allow options, only the option actually used in the construction shall be shown on the as-built drawings. The option not used shall be deleted.

i. In development of as-built drawings, the Contractor shall not substitute shop drawings for original contract drawings. All necessary information for as-built conditions shall be incorporated into contract drawings.

1.26.2 Submittal

Submittal to Contracting Officer for review and approval: Two (2) copies of the preliminary as-built marked prints shall be delivered to the Contracting Officer at the time of final inspection of each facility for review and approval. Changes and additional information marked on the contract plans should be made in red or green color for highlighting purposes. If upon review of the preliminary as-built drawings, errors or omissions are found, the drawings shall be returned to the Contractor for corrections. The Contractor shall complete the corrections in red or green color, and return both sets of final as-built marked prints to the Contracting Officer within ten (10) calendar days. Preparation of final as-built reproducible drawings will be by others.

****
NOTE: Required clause. Use verbatim, do not edit.
****

1.27 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in accordance

with Section 01330 SUBMITTAL PROCEDURES. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company involved and shall contain the name and address of the Contractor, the project name and location, description and the quantity of the items involved, and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material.

****

Note: This clause is meant to supplement specification 01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS. It may be edited to meet the requirements of the project.

Coordination with the TAC Safety and Occupational Health Manager must be effected should any of the following conditions exist or be anticipated:

- **Unexploded Ordnance**
- **Asbestos**
- **Toxic waste**
- **Operating radars in close proximity to the work area**
- **Excavations deeper than 5 meters or**
- **Falls from heights greater than 7 meters or**
- **Exposures to hazardous chemical/biological substances or**
- **Work less than 5 meters from high voltage lines or Underground earth work or tunnels**
- **Danger of drowning or [SCUBA] [Hard Hat] diving or**
- **Use of compressed air or**
- **Work with ionizing radiation/explosives**
- **Work involving assembly or dismantling of heavy prefabricated components (10 tons or greater)**
- **Lead**

TAC Forms 61 has been scanned in PDF format. TAC Form 60 entitled On-Site Accident Prevention Plan will no longer be used. Please notify the Publisher to add form 61 Accident Prevention Program Hazard Analysis when the files are ready to be converted to EBS.

****

1.28 ACCIDENT PREVENTION

The requirements contained in this clause are in addition to and suppliment the requirements of Section 01525 SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS. The Contractor shall comply with all applicable Host Country laws and with such additional measures as the Contracting Officer may find necessary in accordance with CONTRACT CLAUSE 52.236-13 entitled ACCIDENT PREVENTION (NOV 1991)-ALTERNATE 1 (APR 1984). Applicable provisions of the Corps of Engineers manual entitled Safety and Health Requirements Manual EM 385-1-1, will be applied to all work under this contract. The referenced

manual may be obtained from the Contracting Officer's Representative at the jobsite or from the Transatlantic Programs Center at Winchester, Virginia.

1.28.1 Accident Prevention Program

Within fifteen (15) days after receipt of Notice to Proceed, and at least ten (10) days prior to the accident prevention pre-work conference, four (4) copies of the Accident Prevention Plan required by the CONTRACT CLAUSE 52.236-13 entitled ACCIDENT PREVENTION (NOV 1991)- ALTERNATE I shall be submitted for review by the Contracting Officer. The Contractor shall not commence physical work at the site until the Accident Prevention Plan (APP)has been reviewed and accepted by the Contracting Officer or his authorized representative. The APP shall meet the requirements listed in Appendix "A" of EM385-1-1. The program shall include the following:

TAC Form 61 " Accident Prevention Program Hazard Analysis (Activity Hazard Analysis)" fully completed and signed by an executive officer of the company in block No. 13.

The Activity Hazard Analysis is a method in which those hazards likely to cause a serious injury or fatality are analyzed for each phase of operations. Corrective action is planned in advance which will eliminate the hazards. An analysis is required for each new phase of work. On large or complex jobs the first phase may be presented in detail with the submittal of the Accident Prevention Plan rather than presenting the complete analysis. If the plan is to be presented in phases, a proposed outline for future phases must be submitted as a part of the initial Accident Prevention Plan submittal. Accident Prevention Plans will be reviewed for timeliness and adequacy at least monthly with a signature sheet signed and dated documenting that these reviews took place.

Copy of company policy statement of Accident Prevention and any other guidance as required by EM 385-1-1, Appendix A.

1.28.2 Ground Fault Circuit Interrupter (GFCI) Requirement - Overseas Construction

The Corps of Engineers Health and Safety Manual, EM 385-1-1, section 11.C.05.a. states: "The GFCI device shall be calibrated to trip within the threshold values of 5 ma +/- 1 ma as specified in Underwriters Laboratory (UL) Standard 943." A variance from USACE has been granted allowing 10 ma, in lieu of 5 ma, for overseas activities that use 220 Volts(V)/50 hertz(hz) electrical power.

1.28.3 Temporary Power - Electrical Distribution Boxes

EM 385-1-1 section 11.A.01.a. states "All electrical wiring and equipment shall be a type listed by a nationally recognized testing laboratory for the specific application for which it is to be used." This includes temporary electrical distribution boxes. Locally manufactured electrical boxes will not be allowed. Only manufactured electrical distribution boxes that meet the European CE requirements, with 10 ma CE type GFCIs installed shall be allowed.

Contractors shall:

a. Make no modifications that might void any CE or manufacturer certification.

b. Test the installed systems to demonstrate that they operate properly and provide the 10 ma earth leakage protection.

c. Ensure GFCIs will have an integral push-to-test function. The testing shall be performed on a regular basis.

d. Check that proper grounding is checked regularly and flexible cords, connectors, and sockets inspected before each use.

1.28.4 Reinforcement caps

All rebar and other protruding reinforcing steel, onto and into which employees could fall, shall be guarded to eliminate the hazard of impalement. The guarding shall be capable of withstanding a 113 kg (250 lbs) weight dropped from 2.3 meters (7'6") without the rebar or other protruding reinforcing steel breaking through, using protective devices such as steel reinforced covers and wooden troughs. Individual blocks of wood or mushroom style plastic rebar caps manufactured for "scratch protection" only shall not be used unless they can meet the 113 kg requirement.

****
Note: This clause may be edited to meet the requirements of the project.
****

1.29 HAZARDOUS MATERIALS

Should the Contractor encounter asbestos or other hazardous materials, during the construction period of this contract, he shall immediately stop all work activities in the area where the hazardous material is discovered. The Contractor shall then notify the Contracting Officer; identify the area of danger; and not proceed with work in that area until given approval from the Contracting Officer to continue work activities. Hazardous material is considered to be asbestos, explosive devices, toxic waste, or material hazardous to health and safety. The Contractor shall secure the area from daily traffic until it is safe to resume normal activities.

1.30 NOT USED

****
Note: Edit to meet the requirements of the project. When Clause 1.31 CONTRACTOR FURNISHED SPARE PARTS, is used, it should be coordinated with the appropriate O&M Clause (Clause 1.32 or Clause 1.33). Check to insure Payment Item amount is inserted in PROPOSAL SCHEDULE. When used on Egyptian projects, edit shipment and delivery requirements within, and use appropriate paragraph 1.59.8 for Egyptian Freight Forwarder. When using Egyptian Freight Forwarder, delete from line 7 of paragraph 1.59.5, "certified invoice price of surface shipment to the site in".

1.31.2--If Version 2 (Clause 1.33) is used, change title to agree. Paragraphs 1.31.3.1 and 1.31.5 have blank spaces which should have the name of the country for this Project.

****

1.31 CONTRACTOR FURNISHED SPARE PARTS

1.31.1 General

The requirements of this clause are in addition to any requirements for the provision of specific spare parts to be provided by the Contractor included in Divisions 2 thru 16 of the Technical Provisions. The Contractor shall furnish spare parts as directed by the Contracting Officer under the provisions of this clause for all equipment for which O&M data is to be provided under Clause [OPERATION AND MAINTENANCE (O&M) DATA FOR EQUIPMENT AND SYSTEMS] [OPERATION AND MAINTENANCE (O&M) DATA] of this contract. The term "spare parts" as used herein shall include spare parts, special tools and test equipment.

1.31.2 Selection of Spare Parts to be Furnished

The Contractor shall provide master parts lists, recommended spare parts lists and lists of special tools and test equipment as a part of the equipment O&M data required by Clause OPERATION AND MAINTENANCE (O&M) DATA FOR EQUIPMENT AND SYSTEMS. The master parts list shall include the supplier's price for each part. After review of the lists, the Contracting Officer will select spare parts and furnish written direction to the Contractor indicating quantities and types of spare parts to be furnished by the Contractor. Written directions for spare parts orders may be provided on an incremental basis as reviews of O&M data submitted by the Contractor are completed but will not necessarily be issued in the sequence in which the Contractor submitted the equipment O&M data.

1.31.3 Procurement and Delivery Status Reports

The Contractor shall provide the Contractor Officer with quarterly status reports listing the status of all spare parts ordered by the Government under this clause. The data to be provided shall include but not necessarily limited to a brief description of the spare part, quantity, manufacturer, as well as the proposed and actual dates for the procurement, shipping and stocking at the project site.

1.31.4 Procurement and Delivery of Spare Parts

The Contractor shall procure and be responsible for delivery, receipt, handling, placing in storage, shelving, inventory, and turnover to the Contracting Officer all spare parts selected by the Contracting Officer.

****

Use the following paragraph on all Government of Egypt projects, except EAF-AFMC projects. Delete the following paragraph for EAF-AFMC projects.

****

In addition to the recommended spare parts list required in paragraph SELECTION OF SPARE PARTS TO BE FURNISHED above, the Contractor is responsible to have six (6) months supply of manufacturer's recommended spare parts on site ready to turn over to the Contracting Officer at the time of acceptance of the facility.

1.31.4.1 Shipment and Delivery

The Contractor shall be responsible for the shipment and delivery of spare parts to the location on or near the site in [_____] as selected by the Contracting Officer. The Contractor shall provide all manpower and equipment required to receive and place into designated storage areas and/or shelves all spare parts purchased under this clause. The Contractor shall give the Contracting Officer thirty (30) calendar days notice of arrival at the site of the first shipment.

1.31.4.2 Turnover of Spare Parts

The Contractor shall notify the Contracting Officer seventy-two (72) hours prior to delivery of spare parts to the designated storage area. The Contractor and a representative of the Contracting Officer will perform a joint inventory of the spare parts and the spare parts will be turned over to the Contracting Officer. Spare parts purchased under this clause shall not be used by the Contractor.

1.31.4.3 Parts and Package Identification

Prior to shipment from point of purchase, each spare part shall be tagged or otherwise marked or labeled. Such labeling may be placed or affixed to the container, box or packaging in which spare parts are located when it is not feasible to place or affix such labeling directly on each spare part. Tags or labels shall include, but not necessarily be limited to; part number, description, parent equipment name and number location, project and/or other data as directed by the Contracting Officer.

1.31.4.4 Preservation and Packaging Instruction

a. Items ordered under this contract shall be preserved and packed for a minimum of three (3) years shelf life storage. All items shall be individually packaged except when the manufacturer specifies that the items are to be used in sets. Appropriate identification labels must be affixed to the items protective box or package. After the spare parts are packaged, the manufacturer shall weigh the spare parts and packaging and place the weight and size of the packaged container on the label with other information as outlined herein. Each item, not normally identified with manufacturer's name and part number, shall have an appropriate label affixed to it with manufacturer's name and part number.

b. Machined spare parts shall be lubricated or coated in order to withstand extensive periods of storage in a highly corrosive atmosphere.

c. Large items (greater than 50 lbs., or larger than one cubic foot) shall be packaged in waterproof wooden boxes and properly braced. Cushioning shall be used to prevent damage to the item and to the packaging material.

d. Solid state components, such as diodes, transistors, integrated circuits or equipment consisting of such parts which can be damaged as a result of static electricity and other stray electro-magnetic fields shall be packaged in heat-sealed, aluminum foil, laminated, flexible packages.

e. All other spare parts shall be packaged in heat sealed plastic

bags or wrap. Delicate and more fragile items such as test equipment shall be cushioned or wrapped with transparent bubble wrap material prior to being inserted into the plastic package.

1.31.5 Bar coding Identification System

Prior to shipment from point of purchase, each spare part shall be bar coded as well as labeled or tagged. The bar coding system shall be an alphanumeric coding tracking system similar to "Code 39". All labeling may be placed or affixed to the container, box or packaging in which spare parts are located when it is not feasible to place or affix such labeling directly on each spare part. Bar coding, tags and/or labels shall include the following minimum information: part number, description, parent equipment name and number location, and project data or other information as directed by the Contracting Officer. Upon acceptance of the spare parts by the Government, the Contractor developed bar coding system including but not necessarily limited to scanners, verifiers, card readers, decoders, printers, software, and consumables, shall be turned over to the Government. The Contractor shall within 75 days of Notice-to-Proceed, submit to the Contracting Officer for approval, its proposed equipment and plan for the bar coding system.

1.31.6 Warranty

All spare parts provided by the Contractor under this clause are subject to the general warranty clauses of this contract.

1.31.7 Payments for Spare Parts

Payments for spare parts ordered under the paragraph entitled "Selection of Spare Parts To Be Furnished" will be made under the payment item of the Proposal Schedule entitled "Spare Parts". Payments for spare parts specifically required elsewhere in this contract shall be considered as part of those equipment costs and shall be included in other payment items as appropriate. Payments for spare parts ordered under this clause shall be based on the invoice price (FOB supplier) plus certified invoice price of surface shipment to the site in [_____]. The invoice price (FOB supplier) shall include the separately listed cost for preservation and packaging by the manufacturer as specified herein. The Contractor shall provide invoices and any additional backup which may be required to demonstrate that the invoices presented represent the cost of spare parts, preservation and packaging, and cost of surface shipment to the site. Payment for handling, delivery, inventory, turnover, customs, overhead or profit shall not be paid or allowed under this Contract Provision, and shall be included in the cost for installation of this equipment under the other appropriate payment items of this contract. Price increases over prices furnished under paragraph SELECTION OF SPARE PARTS TO BE FURNISHED shall be fully substantiated. Payment for spare parts will be made after the spare parts have been accepted at the site by the Contracting Officer. If the total payments under the payment item entitled "Spare Parts" does not reduce the balance of this payment item to zero, the remaining balance will be deducted from the final contract amount. If orders exceed the payment item entitled "Spare Parts", a modification for equitable adjustment will be issued in accordance with Contract Clause 52.243-4 entitled CHANGES. Payments for spare parts ordered under this clause shall constitute full payment for all cost of the spare parts and associated cost of preservation and packaging, and cost of surface shipment to the site. Other ancillary costs shall be included by the Contractor under the other appropriate payment items of this contract and no additional cost except as

provided herein will be allowed.

****

Note: The O&M special clause has 2 versions; Version 1 (Clause 1.32) and Version 2 (Clause 1.33). Select proper version, and edit accordingly. All blanks are to be filled in and unnecessary parentheses removed. Options within the text shall be selected, and edited as required.

Paragraphs 1.32.2.2.g and 1.32.2.2.j have blanks requiring the name of the country, paragraph 1.33.4.4 has blank requiring language of the country.

****

1.32 OPERATION AND MAINTENANCE (O&M) DATA FOR EQUIPMENT AND SYSTEMS

1.32.1 General

The requirements contained herein are in addition to all shop drawing submission requirements (e.g.,SD-19) stated in other sections of the specification. The Contractor shall include provisions for obtaining the data required below in all purchase orders and sub-contract agreements issued under this contract. The Contractor shall obtain that data which is required to operate and maintain all items of equipment and all systems/subsystems under either normal or emergency operating conditions. See items listed under paragraph EQUIPMENT FOR WHICH O&M DATA MUST BE SUBMITTED for example.

1.32.2 O&M Data for Equipment

1.32.2.1 Equipment for Which O&M Data Must be Submitted

The Contractor shall provide all data necessary to operate and maintain all equipment purchased and/or installed under this contract. The data will consist of any O&M instructions not normally the common knowledge of a Journeyman Level Technician in the applicable trade. Provided below are examples of the general types of equipment for which the Contractor is required to submit O&M data. The examples provided are not definitive for this contract, but are provided to indicate the general types of equipment for which O&M data is required.

Control Devices	Chillers
Lighting Fixtures	Motor Generator Sets
Valves	Cooling Towers
Air Conditioners	Shop Equipment
Motors	Kitchen Equipment
Water Heaters	Exhaust Fans
Compressors	Plumbing Fixtures
Boilers	Appliances (e.g. washing machines, food disposers, coffee urns, etc)

1.32.2.2 Data to be Provided for Each Equipment Item

For each equipment item O&M data shall be submitted as described below. For identical pieces of equipment installed within any one system, only one (1) file of O&M data for that equipment item will be required for maintenance purposes. Deviation from these requirements will require approval of the Contracting Officer. The data as a minimum will include

for each equipment item, the following:

a. Equipment O&M Data Sheet: Equipment O&M data sheet shall include the equipment name, manufacturer's name and address, model number, (including characteristics and any special remarks), and the serial number(s), tag number(s) or any user assigned identification number(s), and installed location(s) of the equipment. This sheet shall be the first page of each item of equipment O&M data package and shall contain a checklist covering paragraphs 1.32.2.2.b thru 1.32.2.2.j hereinafter.

b. Equipment Description: Equipment description shall include item name, model number, serial number, equipment price (FOB Manufacturer), electrical and/or mechanical characteristics, manufacturer's name and address, order number and all other data found on the equipment name plates. Include local/regional representative of manufacturer, name, address, telephone number, and telex number.

c. Component and Assembly Drawings/Master Parts List: Component and assembly drawings/master parts list shall contain exploded views and a master parts list clearly identifying all parts and subassemblies by manufacturer's part number. Master Parts list shall also include the price for each part (FOB Manufacturer) and effective date.

d. Control Diagrams and Sequences of Operations: Control diagrams and sequences of operations shall include operating instructions (including normal start-up, normal shut-down and emergency shut-down as applicable).

e. Performance Characteristics: Performance characteristics shall include performance curves for full range of operation, and data pertinent to characteristics of equipment provided.

f. Installation Instructions: Installation instructions shall include adjustment and alignment procedures, checkout procedures and test procedures.

g. Preventive Maintenance Procedures: Preventive maintenance procedures shall include inspection, cleaning, adjustment, service and lubrication instructions. A schedule shall be furnished for each piece of equipment listing manufacturer's recommended maintenance routine of specific tasks to be performed at specific intervals such as daily, weekly, monthly, quarterly, or based on the number of operating hours. Preventive maintenance schedules shall take into account operating conditions in [_____].

h. Corrective Maintenance Procedures: Corrective maintenance procedures shall include instructions for troubleshooting, repair, overhaul and calibration.

i. Special Items: The Contractor shall prepare a list of special tools, test equipment, and safety precautions when specified in the Technical Provisions and special items that are normally provided by the manufacturer with the equipment. The list shall also include the current unit price and date for each item (FOB MANUFACTURER).

****
NOTE: In paragraph 1.32.2.2.j: For Non Egyptian projects, PM will decide spare parts requirements. For all Government of Egypt projects, EXCEPT EAF-AFMC, edit to have 5 years, and 2 years stock level. (When used on EAF AFMC projects use 2 years, and 6 months).
****

j. Recommended Spare Parts List: List shall contain the manufacturer's recommendation for [five (5) years and two (2) years] [five (5) years, two (2) years, and one (1) year] [five (5) years, two (2) years, and six (6) months] [two (2) years, and six (6) months] spare parts stock levels in [_____]. Current unit price and effective date, lead time, shelf life for each individual part, and total cost of all recommended parts shall be furnished.

1.32.2.3 Preparation of O&M Data for Each Equipment Item

At least two (2) sets of the final approved O&M Data shall be composed of original copies. No other form of printed and prepared data shall be acceptable unless approved in writing by the Contracting Officer. All data shall be prepared in the English language covering data described in paragraph EQUIPMENT FOR WHICH O&M DATA MUST BE SUBMITTED, and shall be furnished in the number of submittals (number of sets of volumes) specified in Section 01330 SUBMITTAL PROCEDURES of the Technical Provisions. Each item of equipment shall be cross referenced in the equipment O&M Data and Systems Manuals, to include installation location using the Contractor's system of identification as approved by the Contracting Officer. All data shall be presented on 8-1/2 x 11 inch sheets to the greatest possible extent. Foldouts will normally be limited to 11 x 17 inch sheets. For other sets of data, reproductions shall be clear, legible, re-reproducible, and not subject to fade. Extraneous information on inapplicable models or components shall be removed or suitably marked through. O&M data shall be contained in a volume consisting of multi-ring binders of good commercial quality. Each volume shall be identified by the equipment name as shown on the Equipment O&M Data Sheet, and sequentially numbered. Each volume shall include an index of items included in the binder and the index shall be the first sheet in the binder, and all remaining data shall be taped accordingly. Volume binders shall be packed (maximum) 2/3 full to allow easy access to contents.

1.32.2.4 O&M Data Submittal Procedure for Each Equipment Item

The initial submittal of O&M Data for each item of equipment shall include all data required in paragraph DATA TO BE PROVIDED FOR EACH EQUIPMENT ITEM above, and as required by the technical specifications. Each O&M Data Package shall be submitted in two (2) copies to the Contracting Officer for approval of format and content, not later than ninety (90) calendar days following equipment item selection approval. After approval the two (2) copies will be returned to the Contractor to maintain for incorporation into the final submittal of the full set of O&M Manuals. The Contractor shall allow a minimum period of forty-five (45) calendar days from receipt by the government (exclusive of mailing time)for the Government review and approval/disapproval of O&M data .

1.32.2.5 Payment for Preparation and Submittal of O&M Data for Individual Equipment Items

For payment purposes, preparation and submittal of required O&M data shall be considered as part of the price for the individual item of equipment.

1.32.3 O&M Data for Systems

The Contractor shall develop and provide the data beyond separate equipment items necessary to operate and maintain all civil, mechanical and electrical systems for each building, each central plant, and/or each distribution or collection system. A system is defined as a group of equipment items related in purpose and which share electrical power or communication circuits as in a fire alarm system or which share mechanical piping or ductwork as in an HVAC system. O&M data for systems shall be submitted as described below.

1.32.3.1 Preparation and Organization of Systems O&M Manuals

At least two (2) sets of the final approved systems O&M manuals shall be composed of original copies. For each location and for each system installed, the Contractor shall prepare and provide the required number of sets of separate complete system O&M Manuals, bound in loose leaf three ring binders. These manuals will provide the basic information and direction needed by journeymen operators to effectively operate each system and by journeymen maintenance technicians to perform Preventive Maintenance (PM) and Corrective Maintenance (CM) routines on systems components. The following identification shall be printed on the cover and spine of each binder, the words "OPERATING AND MAINTENANCE INSTRUCTIONS", plus name of the system, the location of the building(s). When two or more binders are required for the data, for an individual system, the binder shall be marked 1 of n, 2 of n, 3 of n, etc.(where n equals the total number of binders). Each manual shall have a complete index page(s) which shall be inserted after the title page of the first volume of that system. Title page shall include name of project and project number. Each binder shall have a complete index that lists all the information and data contained in the binder(s). All systems O&M Manuals shall include the following:

a. Each piece of equipment will have a divider and tab properly identified.

b. Each section for each piece of equipment will have a divider and tab properly identified.

c. Narrative description of principles of operation.

d. Systems flow diagrams showing point-to-point connections, sequence of operation, control diagrams and identification of each system component.

e. Electrical single line and three (3) line diagrams in sufficient detail to define the system and operation of related parts.

f. Final balancing reports for air, water and other systems as applicable. (These may be added to the manual after installation testing is completed and accepted.)

g. Systems test reports and certification.

h. Operating procedures including pre-start, start-up, normal operation, emergency operation, normal and emergency shut-down.

i. Schedules including valve schedules, circuit breakers schedules, equipment schedules, etc.

j. List of special tools and test and calibration equipment.

k. List of systems components cross referenced to the O&M equipment data volume number.

l. System preventive maintenance procedures and schedules.

m. System troubleshooting guides.

n. System corrective maintenance procedures.

o. Folded-up copy of the system's wall charts (Training instructions).

1.32.3.2 Submittal of Systems O&M Manuals

Submittal of Systems O&M Manuals for each system installed shall include all data required in paragraphs 1.32.2.2.a thru 1.32.2.2.j hereinbefore. Two (2) copies shall be submitted to the Contracting Officer for approval not later than [___] calendar days prior to the construction completion date. If disapproved the two (2)copies will be returned to the Contractor for correction and resubmittal. Final submittals of all Systems O&M Manuals must include and be simultaneous with all O&M Data Manuals for equipment associated with that system.

Upon completion of systems check out and acceptance tests the Contractor shall submit a supplemental submittal containing any addition, deletion or correction found appropriate due to these tests performed in the field or during training.

1.32.3.3 Payment for Preparation and Submittal of System O&M Manuals

For payment purposes, preparation and submittal of required O&M manual data and framed instructions shall be considered as part of the price for the individual item of equipment. No separate payment will be made for the preparation and submittal of O&M manuals. In the event the Contractor fails to comply with these requirements or fails to deliver the O&M manual submittal within the stated time limits, the Contracting Officer may withhold sufficient funds from Contractor's progress payments until the required data is submitted and approved.

1.32.4 Framed Instructions for Systems

For each system, the Contractor shall provide framed instructions mounted on the wall of each mechanical and electrical equipment room which contains a portion of the system. The size of the framed instructions will be governed by the content to be framed plus room for a minimum of two (2) inch border. The framed instructions shall include drawings and typed narrative descriptions as required to provide the following information:

1.32.4.1 Drawings

Drawings containing flow, piping, instrumentation and control diagrams of mechanical systems and wiring and control schematics of electrical systems

contained within or controlled from that equipment room.

1.32.4.2 Equipment and System Narrative

Narrative containing equipment and system normal pre-start, start-up, operating and shut-down procedures.

1.32.4.3 Emergency Shut-Down Narrative

Narrative of emergency shut-down instructions and safety precautions.

1.32.4.4 Preparation and Installation of Framed Instructions

All material prepared for use as framed instructions to meet the requirements of paragraph EQUIPMENT AND SYSTEM NARRATIVE above shall be prepared in the English language. All material prepared for use as framed instructions to meet the requirement of paragraph EMERGENCY SHUT-DOWN NARRATIVE above shall be prepared in dual language [__________] over English. Drawings and narratives prepared for use as framed instructions shall be submitted to the Contracting Officer for approval prior to posting. Framed instructions shall be mounted using frames with glass or rigid plastic covers as approved by the Contracting Officer. All framed instructions must be posted before final acceptance testing of the equipment and systems.

1.32.4.5 Payment for Framed Instructions

For payment purposes, the framed instructions will be considered a part of the Systems O&M Manuals.

1.32.5 Contractor Responsibility for Updating O&M Information

The Contractor shall be responsible for the accuracy of all information furnished in accordance with the above requirements. The Contractor shall be responsible for updating or supplementing all O&M data, including data which has been previously submitted, to reflect changes in the contract or to correct errors discovered by any other means. The O&M data for separate equipment items, the systems O&M Manuals, and the framed instructions prepared by the Contractor shall be utilized and verified during installation and testing of the equipment and/or systems and shall be updated and corrected as required. Errors found during systems testing and validation shall be corrected within fourteen (14) calendar days of completion of each test and validation. Drawings, pages of text, etc. of systems O&M Manuals shall be complete in final form. Marked-up drawings or pages are not acceptable.

****

Note: The O&M special clause has 2 versions (Clauses 1.32 and 1.33). The following Version 2 may be used for smaller projects, where limited amounts of mechanical and electrical equipment are involved, or on projects such as housing projects where mechanical and electrical equipment are less complex. This version DOES NOT CONSIDER SPARE PARTS LISTS. Coordinate title in 1.31.2 and 1.37.2.2.a. Edit accordingly.

****

1.33 OPERATION AND MAINTENANCE (O&M) DATA

1.33.1 General

The requirements contained herein are in addition to all shop drawings submission requirements stated in other sections of the specifications. The Contractor shall include the provisions for all items required under this clause in all purchase orders and sub-contract agreements. Submittals required hereinafter will not relieve the Contractor of any responsibilities under the Warranty of Construction Provisions of this contract or under the various Guarantee Clauses of the Technical Provisions.

1.33.2 Submittals

The Contractor shall submit all items requiring submission of O&M data under this and other sections of these specifications in accordance with Section 01330 SUBMITTAL PROCEDURES of the specifications.

1.33.3 Operation and Maintenance (O&M) Data

The Contractor shall furnish operation and maintenance manuals for all facilities constructed under this contract. The manuals shall be loose leaf, indexed and shall consist of manufacturer's brochures, manufacturer's operation and maintenance manuals, service and repair manuals, catalogs, service bulletins, instruction charts, diagrams, other information as necessary to support the operation and maintenance of the end items of equipment, assemblies and systems. Each type of facility (housing, barracks, mosque, etc.) shall be covered by a separate manual (or manuals) consisting of all data pertaining to the equipment and/or systems within that facility. Identical equipment within a single major system shall require only one submittal of data. The Contractor shall furnish all O&M manuals to the Contracting Officer not less than [ninety (90)] [_____] calendar days prior to contract completion. Required number of submittals (number of sets) shall be as specified in Section 01330 SUBMITTAL PROCEDURES.

1.33.4 Supplemental Submittals of Data

After initial submittal of O&M manuals and until final acceptance of all equipment, the Contractor shall prepare and deliver to the Contracting Officer supplemental technical data as previously described for all changes, modifications, revisions and substitutions to equipment and components. For equipment or systems introduced into the contract under change order, or modified by change order, supplemental data shall be furnished within forty-five (45) calendar days after issuance of Notice to Proceed for the change order. The supplemental data furnished shall be properly prepared and identified for insertion into the O&M manuals.

1.33.5 Framed Instructions for Systems

Approved wiring and control diagrams showing the complete layout of the entire system, including equipment, piping, valves and control sequence, framed under glass or in approved laminated plastic, shall be posted, where applicable, in all mechanical equipment rooms. In addition, detailed operating instructions explaining safe starting and stopping procedures for all systems shall be prepared in typed form along with the inspections required to insure normal safe operations. The instructions shall be framed as specified above for the wiring and control diagrams and posted beside the diagram. Proposed diagrams, instructions, and other sheets

shall be submitted for approval prior to posting. Operating instructions shall be posted before acceptance testing of the systems and verified during acceptance testing.

1.33.6 Additional Submittals/Resubmittals

The Contracting Officer reserves the right to determine whether the above specified information, as furnished by the Contractor, is adequate and complete and to require such additional submittals by the Contractor as necessary to insure that adequate information has been furnished to provide the satisfactory operation and maintenance of the various items of equipment and to fulfill the intent of the specifications. Additional submittals or resubmittals supplementing incorrect or incomplete data shall be made within thirty (30) calendar days after receiving notice by the Contracting Officer. All costs arising from these resubmissions shall be borne by the Contractor.

****
NOTE: Use of this clause if restricted to Navy Projects within the Area Support Unit (ASU) Bahrain. It requires approval of EC-M and the customer. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office.
****

1.34 OPERATION AND MAINTENANCE SUPPORT INFORMATION (OMSI [ALTERNATE 1])

1.34.1 General Requirements

1.34.1.1 Description of Manuals.

The purpose of the work is to provide OMSI manuals that contain detailed, as-built information that describes the efficient, economical and safe operation, maintenance, and repair of the subject facility. The OMSI manuals are to be factual, concise, comprehensive and written to be easily used by operation and maintenance personnel. Descriptive matter and theory must include technical details that are essential for a comprehensive understanding of the operation, maintenance and repair of the system. The Contractor and it's Contractor Quality Control (CQC) organization shall ensure that OMSI manuals reflect changes to systems and equipment made during construction. The words system, systems, and equipment, when used in this document, refer to as-built systems and equipment.

1.34.1.2 Organization of Manuals

The Contractor shall prepare the OMSI manuals in three parts:

Part I - Facility Information
Part II - Primary Systems Information
Part III - Product Data

Cross referencing within or between OMSI manuals must be specific.

1.34.1.3 Metric Manuals

All measurements and units shall be in SI (System International) metric units exclusively.

1.34.1.4 Requirements

The requirements contained herein are in addition to all shop drawing submission requirements stated in other sections of the specifications. The Contractor shall include provisions for obtaining the data required below in all purchase orders and sub-contract agreements issued under this contract. The Contractor shall obtain that data which is required to operate and maintain all items of equipment and all systems/subsystems under either normal or emergency operating conditions.

1.34.1.5 Government Acceptance

Government acceptance of equipment, materials, or products required to be included within an OMSI Manual, will be held in abeyance pending receipt and approval of the manual or portion of the manual associated with that piece of equipment.

1.34.2 OMSI Part I - Facility Information

1.34.2.1 General Facility and System Description

Describe the function of the facility. Detail the overall dimensions of the facility, number of floors, foundations type, and expected number of occupants. List and generally describe all the facility systems listed in OMSI Part II - Primary Systems Information and any special building features (for example , cranes, elevators, and generators). Include photographs, marked up and labeled to show key operating components and the overall facility appearance.

1.34.2.2 Project Criteria

Summarize the criteria that shows the basic scope of work, assumptions and intentions of the Contractor in complying with the project design.

1.34.2.3 Safety Hazards

In accordance with EM 385-1-1 entitled Safety and Health Requirements Manual, list all residual hazards identified in the Activity Hazard Analysis as prepared by the Contractor. Provide recommended safeguards for each identified hazard.

1.34.2.4 Floor Plans

Provide uncluttered, legible 275 mm by 425 mm floor plans. Exact copies of the design plans are not acceptable. Include only room numbers, type or function of spaces, and overall facility dimensions on the floor plans. Do not include construction instructions, references, frame numbers, etc.

1.34.2.5 Utility Connection and Cutoff Plans

Provide utility site and floor plans that indicate the exterior and main interior connection and cutoff points for all utilities. Include enough information to enable someone unfamiliar with the facility to quickly locate the connection and cutoff points. Do not include items such as contour lines, elevations, and subsurface information on the site plans. Indicate the room number, panel number, circuit breaker, valve number, etc., of each connection and cutoff point, and what that connection or cutoff point controls. These plans are in addition to the Floor Plans.

1.34.2.6 Extended Warranty Information

List all warranties for products, equipment, components, and sub-components whose duration exceeds one year. Cross reference the list to the warranty copies included in OMSI Part II - Primary Systems Information or in Part III - Product Data. For each warranty listed, indicate the applicable specification section, duration, start date, end data, and the point of contact for warranty fulfillment. Also, list or reference all specific operation and maintenance procedures that must be performed to keep the warranty valid.

1.34.2.7 Equipment Listing

Provide a table that lists the major equipment shown on the equipment schedules. Show the item descriptions, locations, model numbers, and the names, addresses, and telephone numbers of the manufacturers, suppliers, Contractors, and subcontractors.

1.34.2.8 HVAC Filters

Provide a table that lists the quantity, type, size, and location of each HVAC filter.

1.34.2.9 Floor Coverings

Provide a table that lists by room number (including hallways and common spaces), the type of space, type of floor covering and area of floor. The table will include a facility summary of the total area for each type of space and floor covering.

1.34.2.10 Wall surfaces

Provide a table that lists by room numbers (including hallways and common spaces), the type of wall surface, and area of wall surface. The table shall include a facility summary of the total area for each type of wall surface.

1.34.2.11 Ceiling Surfaces

Provide a table that lists by room number (including hallways and common spaces), the type of ceiling surface, and area of ceiling surface. The table shall include a facility summary of the total area for each type of ceiling surface.

1.34.2.12 Windows

Provide a table that lists by room number (including hallways and common spaces), the type of window, window size, number of each size and type, and any special features. The table will include a facility summary of the total number for each type and size of window.

1.34.2.13 Lighting Fixtures

Provide a table that lists by room number (including hallways and common spaces), the type and voltage of the lighting fixture, number of lighting fixtures, type of bulbs or tubes, and number of bulbs and tubes. The table will include a facility summary of the total number of fixtures of each type and number of bulbs or tubes of each type.

1.34.2.14 Plumbing Fixtures

Provide a table that lists by room number, the number and type of plumbing and bathroom fixtures (for example, sinks, water closets, urinals, showers and drinking fountains).

1.34.2.15 Roofing

Provide the total area of each type of roof surface and system. Provide the name of the roofing product and system, manufacturer's, supplier's, and installer's names, addresses, and telephone numbers. For each type of roof, provide a recommended inspection, maintenance and repair schedule that details checkpoints, frequencies, and prohibited practices. List roof structural load limits.

1.34.2.16 Supply Inventory Requirements

Provide a six (6) month, one (1) and two (2) year list of maintenance and repair supplies (for example, spare parts, fuels, lubricants) required to ensure continued operation without unreasonable delays. Identify and list parts and supplies that have long purchase lead, or delivery times.

1.34.2.17 As-built Drawing List

Provide a list of the as-built drawings. Include drawing number and title.

1.34.2.18 Training Requirements

Provide a list of recommended training related to the operation, maintenance and repair of each installed system that is available from the manufacturer or other source. Provide the name, address, and phone number of point of contact. The training requirements shall pertain only to systems listed in OMSI Part II - Primary Systems Information.

1.34.2.19 Skill Matrix

Provide a matrix by system and skill that identifies productive hours required to maintain the facility's systems listed in OMSI Part II - Primary Systems Information. An example of the format follows:

	Hours			
Skill required	System 1	System 2	System 3	Total/Skill
Skill 1				
Skill 2				
Skill 3				
Skill 4				
Total/ System				

1.34.3 OMSI Part II - Primary Systems Information

1.34.3.1 General

The Contractor shall develop and provide the data beyond separate equipment items necessary to operate and maintain all architectural, civil, mechanical and electrical systems for each building, each plant, and/or each distribution or collection system. A system is defined as a group of equipment items related in purpose and which share electrical power or communication circuits as in a fire alarm system, or which share mechanical piping or ductwork as in an HVAC system or materials which provide a singular function such as VCT floor tiles, acoustical ceiling tile system, etc. OMSI data for systems shall be submitted as described hereinafter. This approach requires that consideration be given to the entire system (that is, the interfaces of equipment, connections, and material flow within the system). The Contractor shall use Notes, Cautions, and Warnings throughout the OMSI Part II - Primary Systems Information to emphasize important and critical instructions and procedures. Place notes, cautions, and warnings immediately before the applicable instructions or procedures. Notes, cautions and warnings are defined as follows:

Note: Highlights an essential operating or maintenance procedure, condition or statement.

Caution: Highlights an operating or maintenance procedure, practice, or condition, statement, etc., that, if not strictly observed, could result in damage to or destruction of equipment, loss of mission effectiveness, or health hazards to personnel.

Warning: Highlights an operating or maintenance procedure, practice, condition, or statement, etc., that, if not strictly observed, could result in injury to, or death, of personnel.

1.34.3.2 Preparation and Organization of Systems OMSI Manuals

For each location and for each system installed, the Contractor shall prepare and provide the required number of sets of separate complete system OMSI Manuals, bound in post type loose leaf binders as indicated in paragraph SUBMITTALS. These manuals will provide the basic information and direction needed by journeymen operators to effectively operate each system and by journeymen maintenance technicians to perform Preventive Maintenance (PM) and Corrective Maintenance (CM) routines on systems components. The following identification shall be printed on the cover and spine of each binder, the words "OPERATING AND MAINTENANCE INSTRUCTIONS", plus name of the system, and the location of the facilities. When two or more binders are required for the data, for an individual system, the binder shall be marked 1 of n, 2 of n, 3 of n, etc. (where n equals the total number of binders). Each manual shall have a complete index page(s) which shall be inserted after the title page of the first volume of that system. Title page shall include name of project and contract number. Each binder shall have a complete index that lists all the information and data contained in the binder(s).

a. Each piece of equipment and system will have a divider and tab properly identified.

b. Each section for each piece of equipment will have a divider and tab properly identified.

1.34.3.3 OMSI Part II Manual

The OMSI Part II Manual shall include, but not necessarily be limited to, the following:

a. Operation.

1. System Description. Provide a detailed narrative of the system composition and operation and principles of operation. Include technical details that are essential for an understanding of the system.

2. Start-Up Shutdown and Post-shutdown Procedures. Provide step by step instruction to bring systems from static to operational configurations and from operating to shutdown status. Provide narrative description for each operating procedure including the control sequence for each.

3. Normal Operating Instructions. Provide a discussion/narrative description of the normal operation and control of the system. Address operating norms (for example, temperatures, pressures, and flow rates) expected at each zone or phase of the system. Supplement the narrative with control and wiring diagrams and data to explain operation and control of specific equipment.

4. Emergency Operating Instructions. Include emergency procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include emergency shutdown instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance on emergency operations of all utility systems including valve locations and portions of systems controlled.

5. System Flow Diagrams. Provide a flow diagram indicating system liquid, air (do not include ductwork) or gas flow during normal operations. Provide flow diagrams showing point-to-point connections, sequence of operation, control diagrams and identification of each system component. A compilation of non-integrated, flow diagrams for the individual system components are not acceptable.

6. Diagrammatic Plans. Provide floor plans indicating the location of equipment and configuration of the system installation. Include the configuration of associated piping or wiring. Subordinate structural features to utility features.

7. Environmental Considerations. Provide a listing of the equipment that requires special operation, report testing, analysis or inspection to comply with federal, state, or local environmental laws. Examples of possible list items include back flow preventer inspections, underground storage tank testing, hazardous material or waste usage and storage documentation, and air pollution control devices. Each item in the list will include requirements for environmental operation, reporting, testing, analysis, and inspection as well as references to respective implementing regulations, statutes, or policies. The OMSI manuals shall include all requirements needed to comply with the environmental Final Governing Standards (FGS) for Bahrain.

8. Field Test Reports. Provide Field Test Reports (SD-09) system test reports and certification that apply to equipment associated with the system.

9. Operator Servicing Requirements. Provide instructions for services to be performed by the operator such as lubrication, adjustments, and inspection.

10. Safety Instructions. Provide a list of all personnel hazards and equipment safety precautions including a recommended safeguards.

11. Valve List. Provide a list of all valves associated with the system. Show valve type, identification number, function, location, and normal operating position.

12. Operating Log. Provide forms, samples, and instructions for keeping necessary operating records.

13. Electrical single line and three (3) line diagrams in sufficient detail to define the system and operation of related parts.

14. Final balancing reports for air, water, and other systems as applicable. (These may be added to the manual after installation testing is completed and accepted.)

15. Operating procedures including pre-start, start-up, normal operation, emergency operation, normal and emergency shut-down.

16. Schedules including valve schedules, circuit breakers schedules, equipment schedules, etc.

17. List of special tools and test and calibration equipment.

18. List of systems components cross referenced to the OMSI equipment data volume number.

b. Preventive Maintenance

1. Preventive Maintenance Plan and Schedule. Provide a Preventive Maintenance (PM) plan based on manufacturer's recommendations and established engineering practice. Include all pieces of equipment. Provide a check sheet that details maintenance tasks and associated frequencies. Also provide an annual schedule indicating when maintenance tasks should be performed such that work is spread as evenly as possible throughout the year.

2. Preventive Maintenance Procedures. Provide a Task Card for each individual maintenance task identified on the PM Plan and Schedule. Include detailed PM procedures, safety instruction and precautions including Lock out/tag out precautions, required skill level, number of personnel needed, frequency, special tools needed, parts needed, and estimated time required to complete the task.

3. Lubrication Schedule. Provide a lubrication schedule

indicating types, grades, and capacities of lubricants for specific temperature ranges and applications.

4. Preventive Maintenance Log. Provide a tabular form for recording the accomplishment of PM. Log must be able to record date PM was performed, findings, action taken, parts used, time required to complete the work, and other data necessary to provide a good historical record of PM activities performed.

5. System preventative maintenance procedures and schedules.

6. System troubleshooting guides.

7. System corrective maintenance procedures.

8. Folded-up copy of the system's framed instructions and wall charts (Training instructions).

c. Repair

1. Troubleshooting Guides and Diagnostic Techniques. Provide step by step procedures for isolating the cause of system malfunctions. The procedures shall clearly state indications or symptoms of trouble; the sequential instruction, including checks and tests to be performed and conditions to be sought, to determine the cause, and remedial measures to bring the equipment and system to operating condition. Identify special test equipment required to perform the procedures. Start the troubleshooting guide at the system level and proceed to a level where detailed manufacturer's troubleshooting procedures for equipment and components can be referenced.

2. Repair Procedures. Provide repair instructions required to restore equipment to proper operating standards. References must be specific as to location within the OMSI manuals.

3. Removal and Replacement Instructions. Provide or refer to the manufacturer's data for the instructions on the removal and replacement of equipment components. References must be specific as to location within the OMSI manuals.

d. Manufacturer's Data

1. Operation and Maintenance Data. Include the Operation and Maintenance Data Package information per paragraph [1.34.4.1] entitled Operation and Maintenance (O&M) Data Packages. Incorporate this information into each system discussion under the Operation, Preventive Maintenance and Repair sections of Part II - Primary Systems Information.

2. Manufacturer's Equipment Information. Provide drawings, illustrations and product data furnished by the manufacturer for the equipment and system components. Organize and index the information for easy reference.

1.34.4 OMSI Part III - OMSI Product Data

The Contractor shall provide all data necessary to operate and maintain all equipment purchased and/or installed under this contract. Provided below

are examples for which the Contractor is required to submit OMSI data. The examples provided are not definitive for this contract, but are provided to indicate the general types of equipment for which OMSI data is required.

Control Devices	Motor Generator Sets
Lighting Fixtures	Cooling Towers
Valves	Shop Equipment
Air Conditioners	Kitchen Equipment
Motors	Exhaust Fans
Water Heaters	Plumbing Fixtures
Compressors	Appliances (e.g. washing
Boilers	machines, food disposers,
Chillers	coffee urns, etc.)
Stucco and Plaster Treatments	VCT Tiles
Acoustical Ceiling Grid/Tiles	

OMSI Product Data shall provide a record of all material and equipment product data incorporated into the construction of each facility.

Examples of product data include manufacturer's catalog data, Field Test Reports and warranty sheets. Include shop drawings relevant to the operation and maintenance of the facility or system except those used in Part II - Primary Systems Information, OMSI manuals for equipment should be included and separately tabbed within the specification section. Do not include extraneous data, (for example, transmittal sheets, certifications, welder qualifications, Contractor qualifications and certificates of compliance). Highlight or note submittals that contain information on several parts or model numbers to identify installed material. Product data included in Part III - Product Data, should use metric units.

1.34.4.1 Operation and Maintenance (O&M) Data Packages

a. The type of Product Data needed for any system, or piece of equipment depends upon the complexity of that item. Data Package 1 would typically be used for architectural items requiring simple but specific maintenance and replacement; for example, acoustical ceiling, floor tile or carpeting systems. Data Package 2 would be used for an item that is less simple; for example, an item having a motor and some sequence of operation such as a refrigerated drinking fountain. Data Package 3 would be used for a complex piece of equipment, having a specific troubleshooting sequence, but one which does not require and operator on watch; for example, HVAC temperature controls. Data Package 4 would be used for an extremely complex piece of equipment, having an extensive sequence of operation, a complex troubleshooting sequence and one requiring frequent operator attention; at least for start-up and shut-down. Examples of this case would be small boilers and small diesel generator sets. Finally, Data Package 5 would be used for electrical equipment, components or systems on which, wiring and control diagrams are needed for operation, maintenance or repair. Examples of this case are 400 Hz frequency converters, annunciator panels and cathodic protection systems.

b. The Contractor shall perform an extensive review of each specification section and its associated drawings and shall prepare Operation and Maintenance Data Packages as follows:

1. Data Package 1
   (a) Safety precautions
   (b) Maintenance and repair procedures
   (c) Contractor information
2. Data Package 2
   (a) Safety precautions
   (b) Normal operations
   (c) Environmental conditions
   (d) Lubrication data
   (e) Preventive maintenance plan and schedule
   (f) Maintenance and repair procedures
   (g) Removal and replacement instructions
   (h) Spare parts and supply list
   (i) Parts identification
   (j) Warranty information
   (k) Contractor information
3. Data Package 3
   (a) Safety precautions
   (b) Normal operations
   (c) Emergency operations
   (d) Environmental conditions
   (e) Lubrication data
   (f) Preventive maintenance plan and schedule
   (g) Troubleshooting guides and diagnostic techniques
   (h) Wiring diagrams and control diagrams
   (i) Maintenance and repair procedures
   (j) Removal and replacement instructions
   (k) Spare parts and supply list
   (l) Parts identification
   (m) Warranty information

(n) Testing equipment and special tool information

(o) Contractor information

4. Data Package 4

(a) Safety precautions

(b) Operation pre-start

(c) Start-up, shutdown and post-shutdown procedures

(d) Normal operations

(e) Emergency operations

(f) Operator service requirements

(g) Environmental conditions

(h) Lubrication data

(i) Preventive maintenance plan and schedule

(j) Troubleshooting guides and diagnostic techniques

(k) Wiring diagrams and control diagrams

(l) Maintenance and repair procedures

(m) Removal and replacement instructions

(n) Spare parts and supply list

(o) Corrective maintenance man-hours

(p) Parts identification

(q) Warranty information

(r) Personnel training requirements

(s) Testing equipment and special tool information

(t) Contractor information

5. Data Package 5

(a) Safety precautions

(b) Operator pre-start

(c) Start-up, shutdown and post shutdown procedures

(d) Normal operations

(e) Environmental conditions

(f) Preventive maintenance plan and schedule

(g) Troubleshooting guides and diagnostic techniques

(h) Wiring and control diagrams

(i) Maintenance and repair procedures

(j) Spare parts and supply list

(k) Testing equipments and special tools

(l) Warranty information

(m) Contractor information

1.34.4.2 Types of Information Required in O&M Data Packages

For each equipment or material item O&M data shall be submitted as described hereinafter. For identical pieces of equipment installed within any one system, only one (1) file of OMSI data for the equipment item will be required for maintenance purposes. Deviation from these requirements will require approval of the Contracting Officer. The data as a minimum shall include for each equipment item, the following:

a. General

1. Equipment OMSI Data Sheet. Shall include the equipment name, manufacturer's name and address, model number, (including characteristics and any special remarks), and the serial number(s), tag number(s), or any user assigned identification number(s), and installed location(s) of the equipment. This sheet shall be the first page of each item of equipment OMSI data package and shall contain a checklist covering items from the following paragraphs:

[1.34.4.2.b Operating Instructions]
[1.34.4.2.c Preventive Maintenance]
[1.34.4.2.d corrective Maintenance (Repair)]

2. Equipment Description. Shall include item name, model number, serial number, equipment price (FOB Manufacturer), electrical and/or mechanical characteristics, manufacturer's name and address, order number and all other data found on the equipment name plates. Include local/regional representative of manufacturer, name, address, telephone number, and telex number.

3. Component and assembly Drawings/Master Parts List. Shall contain exploded views and a master parts list clearly identifying all parts and subassemblies by manufacturer's part number. Master Parts list shall also include the price for each part (FOB Manufacturer) and effective date.

4. Control Diagrams and Sequences of Operations. Shall include operating instructions (including normal start-up, normal shut-down and emergency shut-down as applicable).

5. Performance Characteristics. Shall include performance curves for full range of operation, and data pertinent to characteristics

of equipment provided.

6. Installation Instructions. Shall include adjustment and alignment procedures, checkout procedures and test procedures.

7. Special Items. The Contractor shall prepare a list of special tools, test equipment, and safety precautions when specified in the TECHNICAL PROVISIONS and special items that are normally provided by the manufacturer with the equipment. The list shall also include the current unit price and date for each item (FOB MANUFACTURER).

8. Record of Material and Equipment. Provide a copy of the product data used in the facility construction. Examples of product data include manufacturer's catalog data, field test reports and warranty sheets. Include shop drawings relevant to the operation and maintenance of the facility or system except those used in Part II - Primary Systems Information, OMSI manuals for equipment should be included and separately tabbed within the specification section. Do not include extraneous data, (for example, transmittal sheets, certifications, welder qualifications, Contractor qualifications and certificates of compliance). Highlight or note submittals that contain information on several parts or model numbers to identify installed material. Product data included in Part III - Product Data, should use metric units.

9. Parts Identification. Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as required to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number which will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies. Parts data may cover more than one (1) model or series of equipment, component, assemblies, subassemblies, attachments, or accessories, such as a master parts catalog, in accordance with the manufacturer's standard commercial practice.

10. Warranty Information. Provide copies of equipment extended warranties. List and explain the various warranties and include the servicing and technical precautions prescribed by the manufacturers or contract documents to keep warranties in force. Include warranty information for primary components such as the compressor of air conditioning system.

11. Personnel Training Requirements. Provide information available from the manufacturers to use in training designated personnel to operate and maintain the equipment and systems properly.

12. Testing Equipment and Special Tool Information. Include information on test equipment required to perform specified tests

and on special tools needed for the operation, maintenance, and repair of components.

13. Contractor Information. Provide a list that includes the name, address, and telephone number of the General Contractor and each subcontractor installing the product or equipment. Include local representatives and service organizations most convenient to the projects site. Provide the name, address, and telephone number of the product or equipment manufacturers.

b. Operating Instructions. Include specific instructions, procedures, and illustrations for the following phases of operation:

1. Safety Precautions. List personnel hazards and equipment or product safety precautions for all operating conditions.

2. Operator Pre-start. Include procedures required to set up and prepare each system for use.

3. Startup, Shutdown and Post-shutdown Procedures. Provide narrative description for each operating procedure including control sequence for each.

4. Normal Operations. Provide narrative description of normal operating procedures. Include control diagrams with data to explain operation and control of systems and specific equipment.

5. Emergency Operations. Include emergency procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include emergency shutdown instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance on emergency operations of all utility systems including valve locations and portions of systems controlled.

6. Operator Service Requirements. Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection and gauge reading recording.

7. Environmental Conditions. Include a list of environmental conditions (temperature, humidity and other relevant data) which are best suited for each product or piece of equipment and describe conditions under which equipment should not be allowed to run.

c. Preventive Maintenance. Preventive maintenance procedures shall include inspection, cleaning, adjustment and service. A schedule shall be furnished for each piece of equipment listing manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance and repair. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation. Preventive maintenance schedules shall take into account operating conditions in Bahrain. Include lubrication data, other than instructions for lubrication

in accordance with paragraph OPERATOR SERVICE REQUIREMENTS:

1. A table showing recommended lubricants for specific temperature ranges and applications;

2. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities; and

3. A lubrication schedule showing service interval frequency.

d. Corrective Maintenance (Repair). Corrective maintenance procedures shall include instructions for troubleshooting, repair, overhaul and calibration.

1. Troubleshooting Guides and Diagnostic Techniques. Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or required replacement.

2. Wiring Diagrams and Control Diagrams. Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation numbering.

3. Maintenance and Repair Procedures. Include instructions and list tools required to restore product or equipment to proper condition or operating standards.

4. Removal and Replacement Instructions. Include step-by-step procedures and list required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.

5. Corrective Maintenance Work-Hours. Include manufacturer's projection of corrective maintenance work-hours including craft requirements by type of craft. Corrective maintenance that requires participation of the equipment manufacturer shall be identified and tabulated separately.

6. Recommended Spare Parts List. Separate lists containing the manufacturer's recommendation for two (2) years, one (1) year, and six (6) months spare parts stock levels for operating conditions in Bahrain. Current unit price and effective date, lead time, shelf life for each individual part, and total cost of all recommended parts shall be furnished.

1.34.5 Framed Instructions for Systems

For each system, the Contractor shall provide framed instructions mounted on the wall of each mechanical and electrical equipment room which contains a portion of the system. The size of the framed instructions will be

governed by the content to be framed plus room for a minimum of two (2) inch border. Framed instructions shall be on acid free paper with permanent (non-fading) markings. The framed instructions shall include drawings and typed narrative descriptions as required to provide the following information:

1.34.5.1 Drawings

Drawings containing flow, piping, instrumentation and control diagrams of mechanical systems and wiring and control schematics of electrical systems contained within or controlled from that equipment room.

1.34.5.2 Narrative of Procedures

Narrative containing equipment and system normal pre-start, start-up, operating and shut-down procedures.

1.34.5.3 Narrative of Emergency Procedures

Narrative of emergency shut-down instructions and safety precautions, including but not necessarily limited to the following: Emergency procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include emergency shut-down instruction for fire, explosion, spills, or other foreseeable contingencies. Provide guidance on emergency operations of all utility systems including valve locations and portions of systems controlled.

1.34.5.4 Preparation and Installation of Framed Instructions

Preparation and installation of Framed Instructions. All material prepared for use as framed instructions to meet the requirements of paragraph 1.34.5.2 above shall be prepared in the English language. All material prepared for use as framed instructions to meet the requirement of paragraph 1.34.5.3 above shall be prepared in English. Drawings and narratives prepared for use as framed instructions shall be submitted to the Contracting Officer for approval prior to posting. Framed instructions shall be mounted using frames with glass or rigid plastic covers as approved by the Contracting Officer. All framed instructions must be posted before final acceptance testing of the equipment and systems.

1.34.6 Format

1.34.6.1 General Preparation of OMSI Data for Each Equipment Item

All data shall be prepared in the English language. Each item of equipment shall be cross referenced to include installation location using the Contractor's system of identification as approved by the Contracting Officer. At least two sets of the furnished copies of printed and prepared data shall be of original quality. All data shall be presented on 8-1/2 x 11 inch sheets to the greatest possible extent. Foldouts will normally be limited to 11 x 17 inch sheets. For other sets of data, reproductions shall be clear, legible, re-reproducible, and not subject to fade. Extraneous information on inapplicable models or components shall be removed or suitably marked out. Each volume shall be identified by the equipment name as shown on the Equipment OMSI Data Sheet, and sequentially numbered. Each volume shall include an index of items included in the binder and the index shall be the first sheet in the binder, and all remaining data shall be taped accordingly. Volume binders shall be packed

(maximum) 2/3 full to allow easy access to contents.

1.34.6.2 Binders

Bind the OMSI manuals in durable, hard cover, water and grease resistant post time catalog/manual binders (style similar to FSN 7510-00-889-3520), which hold 8-1/2 by 11 inch (297 by 210 mm) sheets. Binders shall have clear pockets located on the front and on the spine that hold printed sheets.

a. Facility Information Binder. Bind the Part I - Facility Information in a white post type, loose leaf binder of appropriate size.

b. Primary Systems Information Binders. Bind the Part II - Primary Systems Information in blue, post type, loose leaf binders of three inch capacity. More than one system may be included in a single binder provided that all sections of each system are included in that binder.

c. Product Data Binders. Bind the Part III - Product Data in red, post type, loose leaf binders of three inch capacity.

d. Identify each binder on both the cover insert sheet and the spine insert sheet with the following information.

1. OMSI Manual Part I, II, or III with appropriate titles

2. Building Number

3. Project Title

4. Activity and Location

5. Construction Contract Number

6. Prepared For: Transatlantic Programs Center, Winchester, Virginia

7. Prepared By: [_____]

8. Volume Number. Each binder is a single volume. Number each volume consecutively. For example, an OMSI composed of 5 binders would have the Part I - Facility Information binder labeled volume 1 of 5 and the last Part III - Product Data binder would be volume 5 of 5.

1.34.6.3 Pages, Divider and Tabs

Use high quality paper and dividers made of heavy duty paper with plastic reinforced holes and integrated tabs.

a. Facility Information Divider. Use white tabs to identify the major items.

b. Primary Systems Information Dividers. Fuse blue tabs with bold type to identify the system titles. Use dividers with white tabs to identify the different sections under each system and the major topics under each section.

c. Product Data Dividers. Use white tabs to show the Division number and title. Use dividers with colored tabs to identify the specification section number with key words to identify the section title. Use colored non-tab dividers to separate large equipment groupings such as valves, pumps, chillers, and to separate the OMSI data within each specification section.

1.34.6.4 Oversized Sheets

Insert oversized sheets into the binders as single fold-out sheets. Oversized sheets are defined as submittals, instruction sheets, drawings, etc., larger than 8-1/2 x 11 inch, but not exceeding 11 by 17 inch. Oversized sheets shall be folded to expose the sheets title block. Submittals or drawings exceeding 11 by 17 inch, which cannot be reduced, may be inserted in labeled, clear plastic pockets.

1.34.6.5 Preface

Insert a preface sheet in the front of each volume, following a copy of the cover insert sheet. No tab sheet is to be used with the Preface sheet. Include the following information in the Preface.

"Preface"

Introduction

Operational and Maintenance Support Information (OMSI) was prepared for this project to help you operate, maintain, and repair the facility over its life cycle. OMSI manuals provide a comprehensive, organized library of as-built materials, equipment and systems. Use the OMSI manuals as the first step in solving your operation, maintenance or repair problems. Your comments or suggestions are welcome and should be forwarded to: Commander, LANTNAVFACENGCOM, 1510 Gilbert Street, Norfolk, Virginia 23511-2699, Attn: Code 1614. Telephone (804) 322-4647, Fax (804) 322-4715.

Contents

OMSI Part I - Facility Information. This portion of the OMSI manuals contains Basic User Information needed on a daily basis by the owner or tenant of the facility. Examples: General Facility and System Descriptions, Utility Connection and Cut-off Plans, Safety Hazards, Warranty Information. It also provides the information you need to quickly prepare Maintenance Service Contracts and Performance Work Statements for O&M and Custodial Service Contracts. Examples of this information area totals for floor coverings, wall and ceiling surfaces, number, types, and sizes of lighting fixtures, bathroom fixtures, windows, and HVAC filters.

OMSI Part II - Primary Systems Information. This portion of the OMSI manuals provides detailed operation, preventive maintenance, repair, and manufacturer's data for each system selected. This information includes items such as normal and emergency operating procedures, flow diagrams, PM requirements, spare parts, troubleshooting, repair procedures, and warranty provisions. You can expect better PM, faster repairs, and reduced down time by using information in this part of the OMSI manuals.

OMSI Part III - Product Data. This portion of the OMSI manuals consists of construction Contractor submittals for as-built materials and equipment such as manufacturer's catalog data, shop drawings, test data, and

Operation and Maintenance Data not included in Part II. Part III is organized by the divisions and sections of the construction specifications. For example, if you want to find information about the sprinkler system alarm valves, you would look under Division 15 "Mechanical", and product installed, part number, manufacturer, etc. Part II also includes architectural product information for items such as ceiling tile, carpeting, plumbing, and lighting fixtures. This information will keep your facility looking sharp for many years through product-specific maintenance and replacement of its' architectural features.

Updating

The OMSI manuals must reflect the facility's existing components; therefore, you must continually update the manuals. When equipment or components are replaced, add pertinent new information to each manual set. Be sure to update all sections of the OMSI manuals that reference the replaced item. Purge all information on the replaced item to prevent confusion."

1.34.6.6 Table of Contents

Provide a Master Table of Contents for the entire set of OMSI manuals. Place the Master Table of Contents after the Preface sheet of each volume. Provide a specific Table of Contents for Part I - Facility Information, for each system in Part II - Primary Systems Information, and for each division and section of Part III - Product Data.

1.34.6.7 Contractor Responsibility for Updating OMSI Information

The Contractor shall be responsible for the accuracy of all information furnished in accordance with the above requirements. The Contractor shall be responsible for updating or supplementing all OMSI data, including data which has been previously submitted, to reflect changes in the contract or to correct errors discovered by any other means. The OMSI data for separate equipment items, the systems OMSI Manuals, and the framed instructions prepared by the Contractor shall be utilized and verified during installation and testing of the equipment and/or systems and shall be updated and corrected as required. Errors found during systems testing and validation shall be corrected within fourteen (14) calendar days of completion of each test and validation. Drawings, pages of text, etc. of systems OMSI Manuals shall be complete in final form. Marked-up drawings or pages are not acceptable.

1.34.7 Electronic Format OMSI Manuals

The Contractor shall prepare electronic format versions of the OMSI manuals in either Word for WindowsTM format. The Contractor shall provide all the required data for OMSI Manuals Part I - Facility Information and Part II - Primary Systems Information in Word for WindowsTM format. The Contractor shall further provide all drawings, plans, schematic's, diagrams, sketches, figures, and related illustrations in the format native to the latest version in common use of Bently MicroStation CADD. The Government will only accept the final product for full operation, without conversion or reformatting, in this format. The Contractor shall name and index the files for ease of identification and updating. All files shall be provided on 3-1/2 inch high density disks.

1.34.8 Contractor Quality Control (CQC)

The Contractor shall assign to his CQC staff a Graduate Technical Writer with five (5) years minimum experience in preparation of complex Operation and Maintenance Support Information (OMSI) Manuals. This individual shall be available on site to obtain details and documentation on field changes, to take appropriate photos, document as-built conditions and performance tests, and ensure strict compliance with the requirement of this clause. This individual shall provide a presentation of the OMSI prefinal submittal manuals to Government and other representatives at the construction site. The presentation details how the OMSI manuals are organized, what they contain, how they are referenced and cross referenced, and how to use them in day-to-day operation, maintenance and repair. The Contractor shall video tape this presentation in accordance with Special Clause entitled INSTRUCTIONS AND TRAINING FOR OPERATION AND MAINTENANCE. The OMSI CQC shall field verify the accuracy and completeness of the OMSI manuals. This includes verifying that the systems and equipment in the OMSI manuals accurately reflect the as-built conditions, verifying that O&M procedures are appropriate for the systems and equipment that they support; and verifying that equipment nomenclature and system configurations are accurate. The OMSI CQC shall make corrections and recommend in-scope changes to the OMSI manuals prior to delivery of the final submittal.

1.34.9 Submittals

1.34.9.1 Concept OMSI Submittal

The Contractor shall submit within sixty (60) calendar days following equipment approval by the Government (not to exceed 300 calendar days after Notice to Proceed), two (2) copies of the concept OMSI submittal. The Contractor shall schedule equipment submittals in such a manner as to enable review and approval by the Government prior to [____][240] days after the Notice-to-Proceed. The purpose of this submittal is to present, for approval by the Contracting Officer, on overall plan for the preparation of the OMSI Manuals. The submittal shall include, but not necessarily be limited to, the following information:

a. Identify by name all systems that will be addressed in the OMSI manual.

b. Provide the format and table of contents of the OMSI manuals and include the following:

1. Sample post type, loose-leaf binder. Show a typical title as it will appear on the front face and also on the spine of the binder.

2. Proposed divider format with the sample divider and completed tab.

3. Samples showing the quality of acid free paper and quality of reproduction proposed.

4. Select one system of moderate complexity and partially develop the various operational and maintenance aspects of the system. This development should have sufficient depth to clearly demonstrate the arrangement and level of detail proposed for all systems that will be included.

5. A submittal matrix, tailored from the construction submittal matrix, to identify those submittals needed for the preparation of the OMSI manuals. The Contractor shall use the submittal matrix to track submittals needed for the OMSI manuals.

1.34.9.2 Preliminary OMSI Submittal

The Contractor shall submit within 450 calendar days after the Notice to Proceed, two (2) copies of the Preliminary OMSI submittal. This submission shall include the cover sheets, spine, inserts, table of contents, binders, dividers, and other materials as necessary to demonstrate the proposed physical arrangement of the OMSI manuals and the quality of the copies, dividers, and tabs. Present the submittal in sufficient detail to evaluate the data collection and arrangement process. The submittal includes, as a minimum, the following information:

a. All available Part I - Facility Information.

b. All systems of Part II - Primary Systems Information. At least one system shall be essentially complete. The remaining systems shall be at least 50% complete.

c. At least two divisions of Part III, Product Data.

d. An updated submittal matrix, tailored from the construction submittal matrix, to identify those submittals needed for the preparation of the OMSI manuals. The Contractor shall use the submittal matrix to track submittals needed for the OMSI manuals.

1.34.9.3 Prefinal OMSI Submittal

The Contractor shall submit a minimum of seventy-five (75) calendar days prior to the start of any performance test or training, five (5) copies of the Prefinal OMSI submittal. This submission shall include a copy of the preliminary submittal review comments along with the CQC's response to each item. The Prefinal submittal shall contain all the required information required by this Special Clause.

1.34.9.4 Final OMSI Submittal

The Contractor shall submit a minimum of fourteen (14) calendar days prior to the Beneficial Occupancy Date (BOD), [six (6)][_____()] copies of the Final OMSI Manuals to be distributed as follows:

Bahrain Resident Engineer Office, Corps of Engineers
Transatlantic Division, Corps of Engineers
ASU Bahrain
LANTNAVFACENGCOM
Training in accordance with SC entitled INSTRUCTIONS AND TRAINING FOR OPERATION AND MAINTENANCE
[Facility in accordance with SC entitled OPERATIONS AND MAINTENANCE (O&M) PERFORMANCE RERIOD]
[_____]

Included with this submission shall be two (2) sets of the Electronic Format OMSI Manuals. The final submittal must address all previous review comments. Prefinal review comments may include problems discovered during the OMSI manuals review, site validation, facility start-up, and performance tests. The comments will be provided the Contractor at various

times before and after facility BOD. The complete pre-final OMSI manuals and review comments will be returned to the Contractor for preparation of the final submittal. The final submittal shall include a copy of the pre-final submittal review comments along with a response to each item.

1.34.10 Project Schedule

The Concept, Preliminary, Prefinal, and Final OMSI Submittals shall be entered into the Contractor's Progress Schedule in accordance with the general requirement Section [01320] PROJECT SCHEDULE.

1.34.11 Payment

For payment purposes, preparation and submittal of required OMSI data and framed instructions shall be considered as part of the price for the individual item of equipment. No separate payment will be made for the preparation and submittal of OMSI manuals. In the event the Contractor fails to comply with these requirements or fails to deliver the Concept, Preliminary, Prefinal, or Final OMSI submittal within the stated time limits, the Contracting Officer may withhold payment in accordance with Contract Clause FAR 52.232-5 PAYMENT UNDER FIXED-PRICE CONSTRUCTION CONTRACTS.

1.35 NOT USED

****

NOTES TO THE SPECIFICATION WRITER concerning paragraph 1.36.

Although training is specified within the Unified Facilities Guide Specifications (UFGS), UFGS are predominately prescriptive and therefore only used on Design-Bid-Build projects. Design-Build projects require performance based specifications for which no guide specifications have yet been developed. Special care and prudence should be exercised to ensure that section 01015 TECHNICAL REQUIREMENTS requires the Design-Build Contractor to prepare training specifications that will adequately satisfy the Governments needs prior to incorporating this clause into the contract.

When used, edit Clause 1.36 to meet the requirements of the project. Coordinate the number of copies required with PD-M and the responsible field office. Fill in blank spaces as required.

Coordinate these requirements with individual specification sections (i.e., mechanical electrical and equipment specifications). If O&M training is for a project that is replacing an existing facility, coordinate with PD-M to determine if training should be given in a staggered sessions, or between shifts, to maximize attendance by individual crews or shifts.

Paragraph 1.36.4 - For projects with a scheduled construction completion time of less than 540 days insert:"within seventy-five (75) calendar days . . . . . ."

For projects with a scheduled construction completion time at least 540 days but less than 810 days insert: "within ninety (90) calendar days . . . . . ."

For projects with a scheduled construction completion time of at least 810 days but less than 1170 days insert: "within one hundred fifty (150) calendar days . . . . . ."

For projects with a scheduled construction completion time of at least 1170 days but less than 1530 days insert: "within two hundred ten (210) calendar days . . . . . ."

For projects with a scheduled construction completion time of 1530 or more days insert: "within three hundred (300) calendar days . . . . . ."

Paragraph 1.36.5 - Delete this paragraph on projects with little or no maintenance significant equipment. When using this paragraph, the following applies:

- For projects with a schedule construction completion time of less than 540 days insert: "not later than one hundred thirty-five (135) calendar days after notice . . . . . ."

- For projects with a scheduled construction completion time of at least 540 days but less than 810 days insert: "not later than two hundred forty (240) calendar days after notice . . . . . ."

- For projects with a scheduled construction completion time of at least 810 days but less than 1080 days insert: "not later than three hundred sixty (360) calendar days after notice . . ."

- For projects with a scheduled construction completion time of 1080 or more days the correct date for insertion can be found by subtracting 720 from the total scheduled construction completion time.

****

1.36 INSTRUCTIONS AND TRAINING FOR OPERATION AND MAINTENANCE

1.36.1 General

The Contractor shall be responsible for the instruction and training of operating and maintenance personnel as specified below and in the Technical Provisions of the specifications. Unless otherwise indicated in the Technical Provisions, operating and maintenance instructions shall be given for a minimum period as follows:

Section No.	Title	Duration of Training

1.36.2 Operation and Maintenance Training

The Contractor shall provide competent instructors for training of personnel designated by the Contracting Officer to operate [mechanical and electrical building systems] [_____] and equipment, perform the required preventive maintenance to minimize breakdown, and to perform necessary repairs when malfunction or breakdown of equipment occurs. Such training shall consist of classroom and on-the-equipment training for the periods specified, which shall be completed prior to acceptance of a system or equipment, as applicable. The instructor(s) shall have no other duties during the period of training. Classroom instruction shall not exceed fifty percent (50%) of the total training time, with the balance devoted to on-the-equipment demonstration and familiarization. Emphasis will be given to both electrical and mechanical features, in accordance with approved training plans.

1.36.3 Arrangements

The training shall be for not less than the periods of time specified, five (5) days per week, and [eight (8) hours per day] [_____], subject to review and approval by the Contracting Officer. Each individual training session shall be presented one time only, shall be video taped in a television system compatible with the local area, and be scheduled in a manner acceptable to the Contracting Officer. At the completion of training, the video tapes shall become the property of the Government. In addition to the Contractor's requirements to video tape each training section, the Government reserves the right to record, in any manner, the subject training material, or training sessions given by the Contractor, without additional cost to the Government. Recordings obtained will be used in future training by the Government. The operating and maintenance manual data, as specified to be furnished in these Special Clauses, shall be used as the base material for training.

1.36.4 Scheduling

The Contractor shall contact the Contracting Officer for the purpose of preliminary planning, scheduling, and coordination of training, to maximize effectiveness of the training program for available operating and maintenance personnel. The Contractor shall initiate and make arrangements for such contact within [____] calendar days after receipt of notification of award of contract; and shall include all significant times in scheduling and completing training in his [NETWORK ANALYSIS SYSTEM] [PROJECT SCHEDULE]. The Contractor shall provide a draft training outline sufficient in detail to provide a broad indication of the type of scope of training to be given. It shall include but not be limited to; (a) a list of subjects to be presented; (b) estimated amounts of classroom and on-the-equipment instruction for each subject; (c) a list of minimum qualifications for instructors; and (d) discussions concerning the types and amounts of visual aids, reference materials, tools and test equipment, mock-up and other training materials that will be employed during training.

1.36.5 Preliminary Plan

The Contractor shall submit [seven (7)] [_____] copies of an outline of his proposed training plan to the Contracting Officer for review and approval not later than [____] calendar days after Notice to Proceed. The plan will be reviewed and coordinated with the content of the O&M manuals.

1.36.6 Plan

The Contractor shall submit [seven (7)] [______] copies of his proposed training plan to the Contracting Officer for approval not later than ninety (90) calendar days prior to start of any training. The plan shall include the following; (a) a weekly outline showing overall form and design of training presentation; (b) a day-by-day schedule showing time intervals, the major and subordinate subjects to be covered in each, the name of the instructor(s) and qualification summary of each, and identification of related handouts; (c) summary of the number of hours of classroom and on-the-equipment training; (d) a list of reference materials to be provided by the Contractor to the trainees; and (e) a list and description of the training materials to be used, such as text, visual aids, mock-up, tools, etc. The Contractor shall be responsible for furnishing all training materials except the following: The Government will provide space, chairs, and tables for classroom training, and [three (3)] [______] sets of the [[seven (7)] [______] sets of O&M Manuals required by the Contractor per Section 01330 SUBMITTAL PROCEDURES of the specifications. Provision of these manuals is solely for reference purposes, and in no way relieves the Contractor from providing all instruction and materials necessary for training personnel designated by the Government. All costs for resubmission of training plans, training materials, etc., as requested by the Contracting Officer shall be borne by the Contractor. Resubmittals shall be made within twenty (20) days of notice from the Contracting Officer.

1.36.7 Attendance Roster/TAC Form 356

The Contractor shall develop an attendance roster or a similar document indicating each students attendance, prior to the start of each class, subject and/or topic. This includes both "Hands-On" and classroom training. It is strongly recommended that each student trained be required to sign this document at the beginning of each class day for each and every class, subject and/or topic taught on that day. The Contractor's failure to have student attendance verified in writing, may be cause for the Government to order the Contractor to repeat schooling where evidence of attendance can not be verified. No part of the time lost due to such repeat instruction shall be made the subject of claim for extension of time or for excess costs or damage by the Contractor. Within ten (10) working days after completion of Operation and Maintenance Training conducted in accordance with this clause and/or applicable Technical Provision section, the Contractor shall complete and submit TAC Form 356 "Operation and Maintenance Training Validation Certificate". The attendance roster shall be included as an attachment to TAC Form 356.

****

NOTE: When 1.37 is used, edit to meet the requirements of the project. Options must be inserted in the Proposal Schedule. (A) First 6 months O&M, (B) Additional 3 months, and (C) Additional 3 months in accordance with paragraph 1.37.1.b. Coordinate paragraph 1.37.2.2.a and 1.37.2.4 to assure that the appropriate Clause/version of OPERATION AND MAINTENANCE DATA is used in the contract. Coordinate paragraph 1.37.2.3.e to assure that Clause 1.31, CONTRACTOR FURNISHED SPARE PARTS, is used in the contract. Paragraph 1.37.2.1 must be coordinated with EC-M and its customer to obtain a list of systems to be

maintained.
****

1.37 OPERATION AND MAINTENANCE (O&M) PERFORMANCE PERIOD

1.37.1 General

Unless otherwise stated elsewhere in this contract:

a. The work associated with this clause is listed and priced as a separate item in the Proposal Schedule. This option will be exercised through notification by the Government [_____] calendar days prior to implementation of this clause (exercise of option).

b. The minimum duration of work under this clause shall be for a period of six (6) months and can be extended for two (2) additional three (3) month periods. The Proposal Schedule includes prices for the basic six (6) months period and two (2) succeeding three (3) months option periods.

c. The work specified in this clause shall begin on the day following the date of final acceptance, of the work on this contract.

d. All contract provisions under this contract remain in force throughout the Operation and Maintenance periods. However, the work required under this clause is not included in the work which must be finally accepted for reducing the amount of the Bank Letter of Guaranty, or Bond requirements.

1.37.2 Scope

1.37.2.1 General

The Contractor shall provide all labor, materials, parts, supplies and tools for the full operation and maintenance of all plants, systems and equipment, constructed or installed by him, unless otherwise stated elsewhere in this contract. The equipment, systems, plants and/or facilities to be operated and maintained are as follows:

[___(Add information for previous sentence)____]

1.37.2.2 Operation

a. Operation of equipment shall be in accordance with approved O&M manuals submitted by the Contractor in accordance with Clause [OPERATION AND MAINTENANCE (O&M) DATA FOR EQUIPMENT AND SYSTEMS] [OPERATION AND MAINTENANCE (O&M) DATA].

b. Operation shall be on a twenty-four (24) hours per day, seven (7) days per week basis with proper staff in attendance at all times.

c. Operating schedules shall provide for regular maintenance periods in accordance with the manufacturer's recommendations including periodic start-up and shut-down operations.

d. Operating procedures shall provide for regular and special sampling and testing for control of quality in water, fuel, lubricating oil, etc.

e. Operating procedures shall provide for maintaining an adequate quantity of operating supplies, fuels, lubricants, chemicals, etc., at all times. Unless otherwise specified, the Contractor shall leave a six (6) month supply of these materials at completion of these Operations and Maintenance periods.

1.37.2.3 Maintenance

a. Preventive Maintenance (PM): The Contractor shall perform preventive maintenance inspections and servicing as follows:

(1) Perform inspections and services beyond the operator maintenance level as recommended by the manufacturer and at the recommended frequency.

(2) Maintain a schedule for PM activities.

(3) Maintain a file of completed checklists showing PM functions performed, date and any corrective action.

b. Repair and Overhaul: The Contractor shall perform services for repair and overhaul as required to maintain those applicable plants, systems and equipment, herein specified in the generally high level of condition they were at the time of final acceptance.

c. Emergency Repairs: The Contractor shall be prepared to make emergency repairs twenty-four (24) hours a day, seven (7) days a week.

d. Warranty Service: The Contractor shall be responsible for obtaining warranty service (in accordance with the warranty of construction clauses) from equipment manufacturers as applicable. Work shall not be delayed or remain undone due to conflict of warranty responsibility.

e. Parts and Supplies: The Contractor shall be responsible for providing and storing all parts and supplies required to operate and maintain equipment. Those parts and supplies used from the supply of spare parts provided under Clause CONTRACTOR FURNISHED SPARE PARTS, must be replaced. All additional parts stored on site and unused at the time of completion of the contract shall become the property of the Government and shall remain stored on site. Upon completion of the O&M period, the Contractor shall deliver all spare parts and materials noted under item "e" of paragraph OPERATION, herein, and any other parts procured for the Operation and Maintenance period to the designated location provided by the Contracting Officer and an inventory shall be taken at that time, in coordination with the Contracting Officer's Representative.

f. Tools: All Contractor's tools not specified for incorporation into the contract shall remain the property of the Contractor upon completion of the contract.

g. Housekeeping and Maintenance: The Contractor shall provide within his PM Schedule, housekeeping and maintenance of those rooms or facilities which contain the plants, systems or equipment operated and maintained under this contract.

1.37.2.4 Technical Library

The Contractor shall utilize the technical data supplied under [OPERATION AND MAINTENANCE (O&M) DATA FOR EQUIPMENT AND SYSTEMS] [OPERATION AND MAINTENANCE (O&M) DATA]. This information shall be supplemented and corrected as found necessary through experience gained during the operating and maintenance period.

1.37.2.5 Personnel

a. The plants and related systems shall be attended and operated continuously by experienced personnel who are fully qualified and skilled in all phases of operating the particular equipment assigned to be operated during each shift. The crews and shifts need not necessarily be comprised of equal numbers of personnel, and the qualifications of each crew/watch need not necessarily be equivalent. Each crew, however, shall be capable of fully operating and maintaining the plant and systems under the normally expected operating conditions during an assigned shift. A selected portion of the remainder of the off-duty staff shall be scheduled to be available, on-call, for emergencies.

b. The operating staff shall be supervised by a chief operator with a minimum of five (5) years relevant experience. The supervisor shall provide continuity among all personnel to improve staff effectiveness and operational procedures.

c. The maintenance staff shall be comprised of personnel with previous experience in the repair of the type equipment covered under this contract.

d. The maintenance staff shall be supervised by a maintenance engineer with a minimum of five (5) years relevant experience.

e. Supervisors shall assure that safety practices are promulgated and posted, and that all staff members understand and abide by established safety procedures.

f. The Contractor shall designate one individual as the overall manager responsible for the O&M portion of this contract, as defined in this clause and this individual shall meet the approval of the Contracting Officer. This manager may have dual functions. In addition, supervisors and key personnel shall be approved by the Contracting Officer. The requests for review and approval shall include a resume for each person.

g. The manager, supervisors and key personnel shall be on board thirty (30) calendar days prior to implementation of OPERATION AND MAINTENANCE (O&M). A list of those to be on board shall be provided to the Contracting Officer [____] calendar days prior to completion of the construction contract.

1.37.2.6 Reports and Records

The Contractor shall:

a. Maintain a record of all maintenance performed on major units of equipment.

b. Maintain an inventory record of all supplies and parts including stock levels, receipts, issues and requisition status.

c. Maintain a file of completed checklists for all operator maintenance to include lubricant schedule, frequency and type of lubricant required.

d. Prepare monthly operating summaries for each plant.

e. Develop, prepare and maintain hourly operating logs for all central plants such as power generation, chilled water, water treatment, sewage disposal, etc. The logs shall require hourly checks and recording by operators of all significant operating data such as pressures, temperatures, volts, amps, speed, fuel and power consumption, etc. The logs shall also contain any operator maintenance performed and the operating status of all equipment; e.g.,"operating","standby", maintenance", etc.

f. Maintain logs of all fuel, water, etc., samples taken, to include results of sample analysis.

g. Develop, perform, and maintain logs of appropriate weekly fire and safety inspections.

h. Develop, perform and maintain logs of instrument testing and calibration procedures.

i. All of the above reports and records shall remain on site and copies shall be provided to the Contracting Officer upon request.

1.37.2.7 Reliability Tests

The plants and systems shall be maintained and repaired as required to keep them in a like-new operating condition and at the end of the operating and maintenance period shall be put in a like-new condition prior to turnover to the Government. The evaluation of the conditions of the facility, including all equipment, will be made by the Contracting Officer based on:

a. Evaluation of records of maintenance and repairs performed.

b. Physical inspection of the facility including all equipment.

c. The Contractor's demonstration of the specified operational capability of the plants and systems by putting all equipment in service on a design load type operation for a forty-eight (48) hour reliability run. This reliability test shall start ten (10) calendar days prior to completion of the O&M period. All of the above must be made to the satisfaction of the Contracting Officer prior to final payment for Clause OPERATION AND MAINTENANCE (O&M).

****

NOTE: Use of this paragraph requires coordination with EC-M. Extensions to SC 1.22 entitled SPECIAL FACILITIES AND SERVICES TO BE FURNISHED BY THE CONTRACTOR require written approval from the Executive Office through EC-M. Select appropriate paragraph and fill in blank(s) as required to meet the needs of the project.

****

1.37.3 Special Facilities and Services to be Furnished by the Contractor (During O&M Period)

[Services shall be the same as provided under the construction portion of this contract.]

[Services shall be modified as follows:
_____.

****

NOTE: Use of this paragraph requires coordination with EC-M. Extensions to SC 1.20 entitled FACILITIES TO BE FURNISHED BY THE GOVERNMENT require coordination with EC-M and the responsible field office and/or customer. Select appropriate paragraph and fill in blank(s) as required to meet the needs of the project.

****

1.37.4 Facilities to be Furnished by the Government (During O&M Period)

[Services shall be the same as provided under the construction portion of this contract.]

[Services shall be modified as follows:]
_____.

****

NOTE: Use of this paragraph requires coordination with the Proposal Schedule.

****

1.37.5 Payments

The payment amount for the O&M portion of this contract will be as designated in the Proposal Schedule.

a. The Contractor shall submit separate monthly invoices to the Contracting Officer for work performed under this clause.

b. Final payment will be withheld until the satisfactory completion of the reliability run (as defined in this clause) and shall be no less than 10% of the payment item.

1.38 STARTUP, COMMISSIONING, PERFORMANCE/ACCEPTANCE TESTING AND TRAINING

Unless stated elsewhere in this contract, the Contractor shall provide all necessary operating supplies, fuels, lubricants, chemicals, and other expendable consumables necessary to perform startup, commissioning, performance/acceptance testing and training for all equipment and systems specified by this contract.

****

Note: This clause may be edited to meet the requirements of the project.

****

1.39 LOCALLY AVAILABLE SERVICE FOR EQUIPMENT

All equipment furnished under this contract, regardless of country of manufacture or purchase, must have in-country service availability. In the event that the Contractor proposed to provide equipment for which in-country service is not available, the Contractor must provide written justification for the Contracting Officer's approval. This justification shall be submitted for each product or material for which a waiver is sought concurrently with the submittal required by the Technical Provisions. Submission of group or "blanket" waivers is unacceptable.

****
NOTE: This clause shall be used on Projects within the Area Support Unit (ASU) Bahrain. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office
****

1.40 LOCALLY AVAILABLE SERVICE FOR EQUIPMENT (ALTERNATE 1)

Each product, material, system, process or equipment furnished under Part 2 PRODUCTS of the specification, shall, regardless of country of manufacture or purchase, have in-country service, repair, replacement, and technical support availability. The Contractor shall tabulate this information on a separate sheet of paper and provide it as a supplement to each applicable submittal. Upon approval by the Government, the Contractor shall transfer the tabulated information to a cumulative list cross referenced to the applicable specification section. This list shall be submitted to the Government and jointly reviewed on a monthly basis.

1.40.1 Final List

When complete, the Contractor shall submit the finalized list to the Contracting Officer for review and approval. When approved by the Government, this list shall be incorporated into the Operation and Maintenance Support Information (OMSI) Manual required in SC-1.34 entitled OPERATION AND MAINTENANCE SUPPORT INFORMATION (OMSI). The Contractor shall include provisions for obtaining the data required hereinafter in all purchase orders and sub-contract agreements issued under this contract. The aforementioned requirements are in addition to the submission requirements contained elsewhere in the contract documents. The Contractor's list shall include but not necessarily be limited to the following:

a. Description of each product, material, system, process or equipment furnished by this specification.

b. Catalog price and total quantities of each item.

c. Model and serial numbers when applicable.

d. Name, complete address, telephone/FAX number, and e-mail address for the authorized in-country representative of the manufacturer, vendor, or supplier.

1.40.2 Justification Products for Which In-Country Service is not Available

In the event that the Contractor proposes to provide products for which in-country service is not available, or for firms that provide incomplete

or only partial services, the Contractor must provide written justification for the Contracting Officer's review and approval. This justification shall be submitted for each product or material for which a waiver is sought concurrently with the submittal required by the TECHNICAL PROVISIONS. Submission of group or "blanket" waivers is unacceptable.

****
NOTE: This clause may be edited to meet the requirements of the project.
****

1.41 CONTRACTOR FURNISHED EQUIPMENT LISTS

The Contractor shall furnish a list of all items, other than integral construction type items, furnished under the contract. Items such as furniture, drapes, rugs, vehicles, office machines, appliances, etc., shall fall under this category. The Contractor's list shall describe the item, give the unit price and total quantities of each. Model and serial numbers for equipment shall be provided when applicable. The Contractor shall keep an up-to-date register of all covered items and make this information available to the Contracting Officer or his representative at all times. Prior to acceptance, the Contractor shall submit the complete register to the Contracting Officer.

****
NOTE: The blank spaced beneath each month in 1.42.1 shall be completed with information obtained from EC-M.
****

1.42 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

1.42.1 General

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract Clause 52.249-10 entitled DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984. The listing below defines the monthly anticipated unusually severe weather for the contract period and is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the geographic location of the project. The schedule of anticipated unusually severe weather will constitute the baseline for determining monthly weather time evaluations. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract each month, actual unusually severe weather days will be recorded on a calendar day basis (including weekends and holidays) and compared to the monthly anticipated unusually severe weather in the schedule below. The term "actual unusually severe weather days" shall include days actually impacted by unusually severe weather. The Contractor's schedule must reflect the anticipated unusually severe weather days on all weather dependent activities.

MONTHLY ANTICIPATED UNUSUALLY SEVERE WEATHER CALENDAR DAYS

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )	( )

1.42.2 Time Extensions

The number of actual unusually severe weather days shall be calculated

chronologically from the first to the last day in each month. Unusually severe weather days must prevent work for fifty percent (50%) or more of the Contractor's work day and delay work critical to the timely completion of the project. If the number of actual unusually severe weather days exceeds the number of days anticipated in the paragraph above, the Contracting Officer will determine whether the Contractor is entitled to a time extension. The Contracting Officer will convert any qualifying delays to calendar days and issue a modification in accordance with the Contract Clause 52.249-10 entitled DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984.

****

NOTE TO THE SPECIFICATION WRITER for paragraph 1.43.
In certain circumstances, the Government may be aware of the potential for Unscheduled Work Stoppages. In some cases these work stoppages may be routinely scheduled but, in the vast majority of situations these delays occur sporadically and the Government is unable to quantify them prior to award of the project. Since the Government is not a mind reader and has no way of knowing what those delays will be, an "educated-guess" must be attempted. The intention of this "educated-guess" is to mitigate or reduce the impact on the Construction Contractor and thereby reduce potential claims to an acceptable level, not necessarily eliminate them. The secret to success is to quantify the average delay per occurrence in the shortest time unit (e.g., 2 hours) and then estimate the total aggregate amount of delays over the longest period of time possible (e.g., year) i.e., "104 hours per year" provides the Government with more flexibility than does "2 hours per occurrence and approximately 3 occurrences per week" yet both are based on the same amount of lost effort.

Given that this is the "real world", if the total quantity of delays exceed what is written in the contract, the contractor is entitled to a modification for equitable adjustment under the CHANGES clause. Conversely, if the total delays are less than what is stated in the contract, the Government has the option of seeking remedy.

****

1.43 UNSCHEDULED WORK STOPPAGES

The Contractor shall anticipate unscheduled removal from the work site an average of [____] hours per [____] [day, week, month, quarter, year, etc]. If the total quantity of delays varies above or below the stated quantity, an equitable adjustment under Contract Clause 52.243-4 CHANGES shall be made upon written demand of either party. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date if, in the judgment of the Contracting Officer, a delay is justified.

****

NOTE: This clause may be edited for the requirements of the project. Delete 2nd sentence of paragraph 1.43.1, when Appendix A is not used. For

related information please refer to Contract Clause 52.236-4 entitled PHYSICAL DATA.
****

1.44 PHYSICAL CONDITIONS

The indications of physical conditions on the drawings and in the specifications are the result of site investigations. [Exploration logs are presented as an appendix attached to these Special Clauses.]

1.45 STANDARDIZATION

Where two or more items of the same type or class of equipment furnished in this project are required, the units shall be products of the same manufacturer and shall be interchangeable when of the same size, capacity, performance characteristics, and rating. The only exception to this requirement is where the items are interchangeable due to conformance with industry standards (valves, fittings, etc.), they need not be by the same manufacturer. This requirement applies to all manufactured items in the project which normally require repair or replacement during the life of the equipment.

****
NOTE: Use either the clause RESIDUAL CONSTRUCTION MATERIAL or the clause CUSTOM EXEMPT CONTRACT. Do not use them both. The clause RESIDUAL CONSTRUCTION MATERIAL is predominantly used in Foreign Military Sales (FMS) projects where the Host Nation has ownership of the construction materials and has a local Base Civil Engineer/Deputy for Public Works office that has specifically expressed an interest in having all leftover construction material.
****

1.46 RESIDUAL CONSTRUCTION MATERIAL

All Contractor purchased materials and equipment intended for incorporation into the completed facilities and which are later determined excess to the actual construction requirements, will become the property of the Government. The residual materials and equipment shall be tagged (giving the area where like type material and equipment were installed), and stored in an orderly manner in a designated area as directed and approved by the Contracting Officer.

****
NOTE: Use either the clause CUSTOM EXEMPT CONTRACT or the clause RESIDUAL CONSTRUCTION MATERIAL. Do not use them both. The clause CUSTOM EXEMPT CONTRACT is to be used on MILCON and non- Foreign Military Sales (FMS) projects. It may be used on FMS projects.
****

1.47 CUSTOM EXEMPT CONTRACT

The Contractor shall furnish to the Contracting Officer, just prior to completion of this contract, a consolidated inventory of all excess supplies, materials, and equipment imported duty free for use under this contract. The Contractor shall either pay required duties on the excesses, re-export the excesses, or the excesses shall become the property of the

Government.

****

Note 1: This clause will only be used for projects where an exemption from customs is desired and will be recognized. EC-M must confirm if an Intercountry Agreement/Memorandum of Understanding, etc. is in place and valid. May be edited to meet the requirements of the project. For non-Egyptian projects delete reference to GOVERNMENT OF EGYPT (GOE) FURNISHED TRANSPORTATION SERVICES in first paragraph, and delete or edit paragraph 1.48.4. This paragraph may be edited to meet the requirements of a different Host Nation if applicable and if approved by EC-M.

Note 2: CETAC-RM-B Regulation No TAC-R-1-1-3 dated 4 January 1999 paragraph 8 indicates that the Directorate of Resource Management, Budget Division (CETAC-RM-B) will be responsible for managing the MOA MOU/Support Agreements made with customers as well as maintain the official record for all finalized Support Agreements.

DO NOT USE THIS CLAUSE IN SAUDI ARABIAN PROJECTS

****

1.48 CONTRACTOR TRANSPORTATION AND CUSTOMS CLEARANCE

All materials and equipment which are not to be incorporated into the project, such as office trailers, cranes, metal forms, etc., as well as any materials not shipped in accordance with Clause GOVERNMENT OF EGYPT (GOE) FURNISHED TRANSPORTATION SERVICES, may be shipped free of duty, if the following actions are taken:

1.48.1 Shipments of Materials

All shipments of materials into the country for use in performance of work under this contract and supplies or services necessary for support of the Contractor's personnel shall be addressed to the shipping address furnished to the Contractor by the Contracting Officer. Address will be furnished upon request by the Contractor.

1.48.2 Contractor's Responsibilities

The Contractor shall be responsible for all customs clearance actions. All necessary arrangements, clearance procedures, and coordination with the Host Government customs, will be the sole responsibility of the Contractor. The Contractor shall submit to the Contracting Officer, with a cover letter, information copies of the shipping documents for the shipment(s) involved. As a minimum, the following shall be included as enclosures, with the cover letter to the Contracting Officer in three (3) copies:

a. Invoice. (Include a copy in Arabic)

b. Bill of Lading.

c. Certificate of Origin.

d. Statement on the cover letter as to Port of Customs Clearance, estimated arrival date, general description of the shipment, quantity and the name of the carrier.

e. Serial number or model number of shipment items.

1.48.3 Physical Handling of Materials

The Contractor shall be responsible for performance of all loading, unloading, transportation or other physical handling of materials as may be required, including all movement from carrier unloading site to delivery at the job site and all movement required at the customs area.

1.48.4 Certification

The U.S. Embassy, upon receipt of request of shipping documents, shall issue a letter to the Director of Customs certifying that the materials are being brought into Egypt under the applicable agreement and should be allowed into Egypt duty-free.

****

NOTE: Required clause. This clause has two versions. This version is for projects other than in Egypt. Use of this clause requires coordination with EC-M (and the Host Nation). This clause may be edited to meet the requirements of the project.

****

1.49 COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS

The laws of Host Country may prohibit access to certain areas of the country which are under military control. The Contractor shall furnish the Contracting Officer the names of personnel, type, and amounts of equipment, dates and length of time required at the site, and the purpose of entering the host country. It is understood that areas to which rights of entry are provided by the Host Government are to be used only for work carried out under the contract and no destruction or damages shall be caused, except through normal usage, without concurrence of the Host Government.

1.49.1 Contractor's Responsibilities

The following items are the sole responsibility of the Contractor to investigate, estimate as to cost, and assume the risk, as normally encountered by Contractors. The Contractor shall be responsible for determining the effect of the following on his own cost of performance of the contract and for including sufficient amount in the contract price:

a. Official language and type of accounts required to satisfy the officials of the Local Government.

b. Entry and exit visas, residence permits, and residence laws applicable to aliens. This includes any special requirements of the Host Government, including those required by local Labor Offices, which the Contractor may have to fulfill before an application for a regular block of visas will be accepted.

c. Passports, health and immunization certificates, and quarantine clearance.

d. Compliance with local labor and insurance laws, including payment of employer's share of contribution, collecting balance from employee and paying into insurance funds.

e. Strikes, demonstrations and work stoppage.

f. Collection through withholding and payment to local Government, of any Host Country income tax on employees subject to tax.

g. Arranging to perform work in the Host Country, to import personnel, to employ non-indigenous labor, to receive payments and to remove such funds from the country.

h. Operating under local laws, practices, customs and controls, and with local unions, in connection with hiring and firing, mandatory wage scales, vacation pay, severance pay, overtime, holiday pay, 7th day of rest, legal notice or pay in lieu thereof for dismissal of employees, slowdown and curtailed schedules during religious holidays and ratio of local labor employed in comparison to others.

i. Possibility of claims in local bureaus, litigation in local courts, or attachment of local bank accounts.

j. Compliance with workmen's compensation laws and contributions into funds. Provisions of necessary medical service for Contractor employees.

k. Special license required by the local Government for setting up and operating any manufacturing plant in the Host Country, e.g. concrete batching, precast concrete, concrete blocks, etc.

l. Sales within the host country of Contractor-owned materials, and equipment.

m. Special licenses for physicians, mechanics, tradesmen, drivers, etc.

n. Identification and/or registration with local police of imported personnel.

o. Stamp tax on documents, payments and payrolls.

p. Base passes for permanent staff, day laborers, motor vehicles, etc.

q. Compliance with all customs and import rules, regulations and restrictions, including, but not limited to, local purchase requirements.

****
NOTE: Required clause. This clause has two versions. This version is for projects within Egypt. Use of this clause requires coordination with EC-M (and the Host Nation). This clause may be edited to meet the requirements of the project.
****

1.50 COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS (EGYPT)

The laws of Host Country may prohibit access to certain areas of the

country which are under military control. The Contractor shall furnish the Contracting Officer the names of personnel, type, and amounts of equipment, dates and length of time required at the site, and the purpose of entering the Host Country. It is understood that areas to which rights of entry are provided by the Host Government are to be used only for work carried out under the contract and no destruction or damages shall be caused, except through normal usage, without concurrence of the Host Government.

1.50.1 Contractor's Responsibilities

The following items are the sole responsibility of the Contractor to investigate, estimate as to cost, and assume the risk, as normally encountered by Contractors. The Contractor shall be responsible for determining the effect of the following on his own cost of performance of the contract and for including sufficient amount in the contract price:

a. Official language and type of accounts required to satisfy the officials of the Local Government.

b. Entry and exit visas, residence permits, and residence laws applicable to aliens. This includes any special requirements of the Host Government, including those required by local Labor Offices, which the Contractor may have to fulfill before an application for a regular block of visas will be accepted.

c. Passports, health and immunization certificates, and quarantine clearance.

d. Compliance with local labor and insurance laws, including payment of employer's share of contribution, collecting balance from employee and paying into insurance funds.

e. Strikes, demonstrations and work stoppage.

f. Collection through withholding and payment to local Government, of any Host Country income tax on employees subject to tax.

g. Arranging to perform work in the Host Country, to import personnel, to employ non-indigenous labor, to receive payments and to remove such funds from the country.

h. Operating under local laws, practices, customs and controls, and with local unions, in connection with hiring and firing, mandatory wage scales, vacation pay, severance pay, overtime, holiday pay, 7th day of rest, legal notice or pay in lieu thereof for dismissal of employees, slowdown and curtailed schedules during religious holidays and ratio of local labor employed in comparison to others.

i. Possibility of claims in local bureaus, litigation in local courts, or attachment of local bank accounts.

1.50.2 Security Clearance for Site Access

The following procedures have been established for security clearances for site access by U.S. and Egyptian citizens. It is the Contractor's responsibility to ascertain the accessibility of the site to personnel of other nationalities and the procedures to be followed in this case. Final authorization for base pass approval is at the discretion of the Host Government. The procedures below are to be undertaken for the security

clearance to gain access to the construction site. Approximately forty-five (45) calendar days is required by Egyptian Air Force (EAF) to process base passes once all required information is submitted and received by them.

1.50.2.1 For U.S. Citizens (Contractor and Subcontractor Personnel)

a. Initially, a temporary pass (1-month pass) is issued and will be renewed until a permanent pass is processed. These temporary passes take forty-five (45) days to process, under ideal conditions, after receiving the following information.

(1) Original and six (6) photocopies of a one-page, fill-in-the-blank, data form for each applicant-sample form available at the Corps offices in Cairo and Winchester, VA.

(2) Photocopy of applicant's passport.

(3) Photocopy of an Acquired Immune Deficiency Syndrome (AIDS) test certification within six (6) months.

b. Application for the permanent pass (1-year pass) must include:

(1) Original and six (6) photocopies of the data form mentioned above.

(2) Photocopy of applicant's passport.

(3) Seven recent photographs of the applicant.

1.50.2.2 For Egyptian Citizens (Contractor and Subcontractor Personnel)

a. Initially, a temporary pass (1-month pass) is issued and will be renewed until a permanent pass is processed. These temporary passes take forty-five (45) days to process, under ideal conditions, after receiving the following information:

(1) Four photocopies of Egyptian ID card.

(2) Original and four (4) photocopies of a one-page, fill-in-the-blank data form (sample available).

b. Application for the permanent pass (1-year pass) must include:

(1) Four photocopies of Egyptian ID card.

(2) Original and four (4) photocopies of the data form mentioned above.

(3) Seven (7) recent photographs of the applicant.

1.50.2.3 For Personnel Making Short, Site Visits

a. A temporary pass (1-month pass) is issued on a one-time basis.

b. All the forms and information listed above are required for this temporary pass.

1.50.2.4 For Vehicles

The Contractor, throughout the performance of the work shall provide the

Contracting Officer a complete and updated list of all vehicles that will be entering the construction site. An updated list will be posted with the military guards at the gate.

****
NOTE: This clause shall be used on Projects within the Area Support Unit (ASU) Bahrain. It's use requires prior approval and coordination with EC-M and the responsible field office. It may not be used on other projects.
****

1.51 MILITARY BASE SECURITY REQUIREMENTS

The Base Security Office maintains the ultimate authority for establishing, monitoring, and enforcing security requirements for the Base. All Contractor, sub-Contractor, or vendor personnel and vehicles at any their working at any location on the Base are subject to a thorough search upon entering, departing, or at any time deemed necessary by Base Security Personnel. The Contractor shall be responsible for compliance with all Base security requirements. The Government reserves the right to deny access or to require the Contractor to remove any personnel or equipment deemed to be a threat to the security of the Base or Base personnel. The Contractor shall work through the Contracting Officer to assure that Base Security Regulations are followed.

1.51.1 Security Areas

For most of the duration of this contract, the Base will be divided into three (3) zones, the Base Security Area, the Base Parking Area, and the Construction Security Area, as shown on the contract drawings. Minimum requirements for Contractor entry and operations in each of theses areas is described below.

1.51.1.1 Construction Security Area

For the majority of the contract period, a Construction Security Area, as shown on the drawings, will be established. This area includes most of the work areas for this contract. Within the Construction Security Area, the Contractor will have the primary responsibility for implementation and enforcement of the security requirements for all Contractor personnel and equipment in the Construction Security Zone. The Government reserves the right to inspect the Contractor's security operations and to direct the Contractor to immediately correct any deficiencies found. The Construction Security Area will exist until the Medical/Dental Facility or the Quality of Life Facility are accepted by the Government. After acceptance of either of these facilities, the entire Base will be considered as the Base Security Area and all requirements applicable to that area will apply.

a. Access to the Construction Security Area: Contractor access to the Construction Security Area will be limited to the construction gate shown on the contract drawings. The Contractor shall be responsible for controlling access to the Construction Security Zone by all Contractor personnel, equipment, and vehicles. During the period of this contract, other Contractors may utilize the construction gate. The Contractor will not be responsible for monitoring personnel or vehicles of other Contractors. The Contractor shall, however, cooperate with those monitoring security requirements for other contractors to assure a smooth

flow of traffic and personnel through the gate.

b. Identification of Employees in the Construction Security Area: The Contractor shall provide an identification badge for every employee entering the Construction Security Area. The identification badge will be laminated and shall contain the following information in English: employee's name, current color photo, badge number, CPR or Passport number and expiration date, nationality, height and weight, and the Contractor's name (and subcontractor's or vendor's name if applicable). The Contractor shall assure that every employee entering or leaving through the construction gate displays a valid identification badge. Employees shall wear identification badges prominently displayed at all times while in the Construction Security Area. Failure to wear a properly displayed current identification badge will be considered grounds for removal of the employee from the site. The Contractor shall conduct random inspections to assure that identification badges are properly displayed. In addition to identification badges, contractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works. The Contractor shall maintain a current list of all identification badges issued including the same information as contained on the badge. On a weekly basis, the Contractor shall provide the current list of badges issued through the Contracting Officer to the Base Security Office. A current list of badges issued will also be maintained in the construction gate guard house at all times. The Contractor shall be responsible for obtaining the identification badge of any employee no longer working on this project. Badges of all employees removed from the current list of identification badges will be turned over to the Contracting Officer. Prior to final payment under this contract, the Contractor must account for all badges issued throughout the life of the contract.

c. Identification of Vehicles and Equipment in the Construction Security Area. The Contractor shall provide a permanent identification sticker on all vehicles, trailers, and mobile pieces of equipment which have access to the Construction Security Area. In addition, each vehicle, trailer, or mobile piece of equipment shall be marked with the Contractor's name on both sides such that it is clearly visible. The Contractor shall maintain a current access list of vehicles, trailers, and mobile pieces of equipment which are permitted access to the Construction Security Area. This access list shall include the type of equipment, make and model, registration number (if applicable), and license number (if applicable). The current access list shall be provided through the Contracting Officer to the Base Security Office on a weekly basis. A current copy of the list will maintained in the construction gate guard house at all times. The Contractor will be responsible to assure that all of his vehicles, trailers, and mobile pieces of equipment entering the Construction Security Area are properly identified and are included on the access list. All Contractor vehicles and equipment entering through the construction gate will be subject to a through inspection by Government personnel.

1.51.1.2 Base Security Area

Access to the Base Security Area will be controlled by Base Security

personnel. The Contractor will schedule and plan his work to minimize the numbers of personnel, vehicles, and equipment entering the Base Security Area. Within the Base Security Area, Base Security personnel will have the primary responsibility for implementation and enforcement of security requirement. However, the Contractor is responsible to assure that his personnel, vehicles and equipment are in compliance with all security regulations. All requirements for access to the Base Security Area are in addition to requirements for access to the Construction Security Area. All Contractor personnel, vehicles, and equipment entering the Base Security Area must also meet the requirements for access to the Construction Security Area.

a. Access to the Base Security Area. Contractor personnel will enter the Base Security Area through the base personnel gate. Personnel without proper identification and clearance will not be permitted entry. Contractor vehicles and equipment will enter the Base Security Area through the Base Delivery Gate in the BANZ Warehouse area. Vehicle, equipment, and drivers without proper identification and clearance will not be permitted entry. All vehicles and equipment entering the Base Security Area will be thoroughly inspected by Government personnel. Privately owned vehicles will not be permitted entry to the Base Security Area.

b. Identification of Employees in the Base Security Area. All Contractor employees entering the Base Security Area must be wearing a prominently display Contractor Identification Badge at all times within the area. In addition, all Contractor employees entering the Base Security Area must have Base passes or be listed on the Base Access List.

1. Base Passes for Contractor Supervisory Personnel. All Contractor supervisory (above foreman level) requiring frequent access to the Base Security Area will be issued Base passes by the Base Security Office. For each supervisory person requiring access to the Base Security Area, the Contractor shall submit a Base Security Pass Application through the Contracting Officer to the Base Security Office. Copies of the application forms will be made available at the Pre-construction Conference. The Contractor will allow a minimum of seven days for processing and issuance of Base Security Passes. The first fifty (50) passes will be issued at no cost to the Contractor. All additional passes will be issued at a cost to the Contractor of [$5.00] [$_____] per badge. Prior to final payment under this contract, the Contractor shall be responsible to account for all Base passes issued to Contractor employees.

2. Base Access List for Non-Supervisory Personnel. All Contractor non-supervisory personnel (foreman and below) requiring access to the Base Security Area must be included on the Base Access List. The Contractor shall submit, through the Contracting Officer to the Base Security Office, a list of all non-supervisory personnel requiring access to the Base Security Area. The list shall include the following information for each worker: full name, nationality, and Central Population Record (CPR) number or Passport number and expiration date. The Contractor shall allow a minimum of seven days for inclusion of names on the Base Access List. Contractor personnel entering the Base Security Area will be checked against the Base Access List daily. Contractor non-supervisory personnel authorized access will be provided a temporary badge in exchange for CPR or passport each day which must be returned when the employee exits the Base Security Area. The

Contractor shall update the list of employees requiring access to the Base Security Area weekly and shall provide copies of the updated list through the Contracting Officer to the Base Security Office.

c. Identification of Vehicles and Equipment in the Base Security Area. All Contractor vehicles and equipment entering the Base Security Area must meet the requirements for entry into the Construction Security Area. In addition, Contractor vehicles and equipment entering the Base Security Area must be listed on the Base Vehicle Access List. The Contractor shall submit, through the Contracting Officer to the Base Security Office, a list of all vehicles and equipment requiring access to the Base Security Area. The list shall include the following information for each vehicle or piece of equipment: type of equipment, make and model, registration number (if applicable), license number (if applicable), and driver/operator (if applicable). The Contractor shall allow a minimum of seven days for inclusion of vehicles and equipment on the Base Vehicle Access List. The Contractor shall update the list of vehicles and equipment requiring access to the Base Security Area weekly and shall provide copies of the updated list through the Contracting Officer to the Base Security Office. When only one driver will operate a vehicle, the name of the driver may be included on the Vehicle Access List.

1. Drivers Access List. When Contractor vehicles entering the Base Security Area will be operated by more than one driver, the Contractor shall submit a Drivers Access List. The Contractor shall submit, through the Contracting Officer to the Base Security Office, a list of all drivers bring vehicles into the Base Security Area. The list shall include the following information for each driver: full name, nationality, and Central Population Record (CPR) number or Passport number and expiration date. The Contractor shall allow seven days for inclusion of names on the Base Driver Access List. The Contractor shall update the list of drivers requiring access to the Base Security Area weekly and shall provide copies of the updated list through the Contracting Officer to the Base Security Office.

1.51.1.3 Base Parking Area

Except as required to install the temporary fence between the Base Parking Area and the Construction Security Area and to relocate this temporary fence to permit construction required under this contract, Contractor personnel will not be permitted in the Base Parking Area.

1.51.1.4 Access to Operational Area

Contractor personnel are expressly prohibited from entering operational buildings or areas without the specific authorization of the Contracting Office. Necessary access to operational buildings or areas shall be coordinated through the Contracting Officer a minimum of seven (7) days before access is required.

1.51.1.5 Security Plan

The Contractor shall submit to the Contracting Officer, within [twenty (20)] [_____] calendar days after Notice to Proceed, his proposed security plan. This plan shall address the Contractors proposed procedures for complying with all Base security requirements, Guardhouse and Vehicle Shade Structure security operations, and shall address in detail the contractor's

proposed procedures and organization necessary to provide and maintain effective security twenty four hours a day, seven days a week.

****
NOTE: This clause shall be used on projects within the Area Support Unit (ASU) Bahrain. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office.
****

1.52 MILITARY BASE RULES AND REGULATIONS

The Contractor and his employees and subcontractors shall become familiar with and obey all Base rules and regulations including fire, traffic and security regulations. All personnel employed on the Base shall keep within the limits of the work (and avenues of ingress and egress), and shall not enter any Restricted Areas unless required to do so and prior clearance for such entry is obtained. The Contractor's equipment shall be conspicuously marked for identification.

****
NOTE: NOTE: This is an optional clause which may be used on non-Egyptian projects if approved by EC-M, the responsible field office and/or the customer. (Use SC entitled COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS (EGYPT) for all projects within Egypt. This clause is written in a generic format and must be edited to meet the specific needs of individual projects. The following issues shall be addressed and incorporated when applicable:

(1) Is a pass application system required?
(2) How are requests for Base security passes processed?
(a) What is the average base processing time? (This may impact construction start).
(b) Are security clearance(s)required?
(c) Are there any special requirements for Third Country National citizens?
(3) What information is the Contractor required to provide about his employees?
(a) What specific personal background information is needed (e.g., name, nationality, place of birth, date of birth, work history, etc)?
(b) Does base security need employee's permanent home address and/or incountry address?
(c) Does base security require passport data?
(d) Are copies of citizenship I.D. e.g., Igama required?
(e) Does base require copies of work visa?
(f) What type, size, and quantity of photos are required?
(g) Is other information required by Host Nation or base security?
(4) Are contractor employee's required to wear

identification badges?
(a) Are the badges required to be bilingual?
(5) Does the base require any special or temporary fencing or security measures during construction?
(6) Does the base security have any restrictions on movement of workers?
(7) Does the base security have any restrictions on travel routes to and from the project?
(8) Does base security have any restrictions on hours or days of work?

****

1.53 IDENTIFICATION OF EMPLOYEE'S PERSONNEL AND VEHICULAR ACCESS TO THE PROJECT SITES

The the [Military] [Base] [_____] Security maintains the ultimate authority for establishing, monitoring, and enforcing security requirements for the the [Military] [Base] [_____] Security Office. All contractor, subcontractor, or vendor personnel and vehicles at any tier working at any location on the [Base] [_____] are subject to a thorough search upon entering, departing, or at any time deemed necessary by the [Military] [Base] [_____] Security Personnel. The Contractor shall be responsible for compliance will all the [Military] [Base] [_____] security requirements. The Government reserves the right to deny access or to require the contractor to remove any personnel or equipment deemed to be a threat to the security of the [Military] [Base] [_____] Security Office or the [Military] [Base] [_____] personnel. The Contractor shall work through the Contracting Officer to ensure that the [Military] [Base] [_____] Security Regulations are followed.

1.53.1 Employee Identification

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work, to display bilingual [English/Arabic] [English/_____] identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

1.53.1.1 Preparation of Identification Badges

The Contractor shall be required to prepare a written application inclusive color photographs and provide all materials and labor necessary to prepare a bilingual [English/Arabic] [English/_____]identification badge, laminated in plastic, containing the employee's name, badge number, color photo, height and weight, the name of the Contractor's organization and for requiring each employee engaged on the work to display this identification as directed by the Contracting Officer. The Contractor shall submit each application and draft badge through the Contracting Officer to the [Military] [Base] [_____] Security Office. A minimum of thirty-five work days shall be allowed for Government review and certification of badges. The [Military] [Base] [_____] Security Office will certify each draft badge by signature, stamp, seal or any combination thereof. Upon certification by the [Military] [_____]

Security Office, the badges will be returned to the Contractor for final preparation, lamination, and issuance. Badges shall not be taken out of country during periods of travel or absence. During such periods, the Contractor may be permitted to issue temporary identification badges.

1.53.1.2 Employee Background and Historical Information

The Contractor shall be required to prepare and maintain personal background and historical information forms on each employee. These forms may be reviewed by the [Military] [Base] [_____] Security Office. The required information shall include but not necessarily be limited to the following:

a. Full name.

b. Place and date of birth.

c. Three (3) current color photographs.

d. [Central Population Record (CPR)] [_____] card number.

e. Copy of Citizenship/Nationality identification.

f. Copy of Passport.

g. Copy of drivers license.

h. [_____] Police Background Check.

i. Work History.

j. Personal background information.

k. Copy of Work permit and/or Visa.

l. Permanent home of record and in-country address.

m. Other information mandated by local law, the [Military] [Base] [_____] Security Regulations or that may be required to coordinate and process the necessary documentation with the government offices responsible for the approval.

n. Registration, insurance company, policy number and expiration date for each vehicle.

1.53.2 Identification of Contractor Vehicles

The Contractor shall be responsible for requiring each vehicle engaged in the work to display permanent vehicular identification as approved and directed by the Contracting Officer. If acceptable to the [Military] [Base] [_____] Security Office and approved by the Contracting Officer, the Contractor may institute a system of non-permanent temporary identification for one-time delivery and transit vehicles. Each Contractor vehicle, machine, piece of equipment, or towed trailers, shall show the Contractor's name such that it is clearly visible on both front doors of the vehicle and both sides of a towed trailer. A valid license plate shall be displayed at all times. Contractor vehicles operated on Government property shall be maintained in a good state of repair, shall be insured, and shall be registered in accordance with [_____]Law.

1.53.3 Security Plan

The Contractor shall submit to the Contracting Officer, within [twenty (20)] [_____] calendar days after Notice to Proceed, his proposed personnel and vehicular access plan. This plan shall cover all elements for issuance of the access passes, safeguarding of unissued passes, construction security operations, lost passes, temporary vehicle passes, and collection of passes for employee's and vehicles on 1)- temporary absence; 2)- termination or release; and 3)- termination or completion of contract. The plan shall address in detail the contractors proposed procedures, and organization necessary to produce and maintain effective security within the contract limits twenty-four (24) hours a day seven (7) days a week.

****

NOTE: This clause shall be used on projects within the Area Support Unit (ASU) Bahrain. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office.

****

1.54 BASE HOT WORK PERMITS

1.54.1 Requirement for Hot Work Permits

Prior to the start of a work activity including hot work (welding, burning, etc.) or the operating of other flame producing devices, the Contractor shall obtain a Hot Work Permit.

1.54.2 Requests for Hot Work Permits

Requests for Hot Work Permits shall be submitted through the Contracting Officer to the Base Fire Department a minimum of 7 days prior to the start of the work activity covered by the permit. The request for a Hot Work Permit shall include a narrative description of the work to be accomplished, a list of equipment to be used, and a description of special safety precautions that the Contractor will put in place during the work to assure compliance with EM 385-1-1 and Base Fire Regulations.

1.54.3 Preparatory Inspections and Inspection of Equipment

During the Preparatory Inspection for any work activity including hot work, the Hot Work Permit shall be reviewed. During the Preparatory inspection, all hot equipment and safety equipment shall be checked to assure that it is in proper working order. Safety equipment required by the Hot Work Permit shall be checked at the beginning of each shift to assure that it is in proper working order.

****

NOTE: This clause shall be used on Projects within the Area Support Unit (ASU) Bahrain. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office.

****

1.55 RADIO TRANSMITTER RESTRICTIONS

To preclude accidental actuation of sensitive electronic equipment, the Contractor shall not use radio transmitting equipment without prior

approval of the Contracting Officer.

****
NOTE: This clause shall be used on Projects within the Area Support Unit (ASU) Bahrain. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office.
****

1.56 ON-BASE PHOTOGRAPHY PROHIBITION

The Contractor shall not engage in any form of photography without prior written approval from the Contracting Officer.

****
NOTE: This clause shall be used on Projects within the Area Support Unit (ASU) Bahrain. It may not be used on other projects unless specifically authorized by EC-M and the responsible field office.
****

1.57 PUBLIC RELEASE OF INFORMATION

1.57.1 Prohibition

There shall be no public release of information or photographs concerning any aspect of the materials or services relating to this bid, contract, purchase order, or other documents resulting therefrom without the prior written approval of the Contracting Officer.

1.57.2 Subcontract and Purchase Orders

The Contractor agrees to insert the substance of this clause in all purchase orders and subcontract agreements issued under this contract.

****
NOTE: This clause will be used for Egyptian projects but may be used on other projects if approved by EC-M. This clause may be edited to meet the requirements of the project. Fill in blank spaces as required. EC-M will edit the necessary listed job titles based on project size. Coordinate EC-M choices with appropriate CQC Section and Accident Prevention requirements.
****

1.58 REQUIREMENT FOR USE OF U.S. CITIZENS

To assure that the United States maintains a construction capability that is dependable, technically proficient, and responsive to its National requirements and interests this project has been limited to U.S. Contractors. Therefore, the Contractor shall use U.S. Citizens in key management and supervisory positions at the site of the work to the maximum extent necessary to support this goal. As a minimum [_____] U.S. Citizens will be required. The following positions are required to be filled by U.S. Citizens:

Project Manager
Superintendent Assistant

Superintendent, minimum of [_____]
Quality Control System Manager
[Collateral duty with _____]
[Function combined with Accident Prevention System Manager]
[Full time Position]
Accident Prevention System Manager
[Collateral duty with _____]
[Function combined with CQC System Manager]
[Full time Position]

Within [thirty (30)] [_____] calendar days after contract award, the Contractor shall submit for approval, an organization chart showing all management and supervisory positions to the foreman level. The chart shall denote those positions which will be filled by U.S. Citizens.

1.59 GOVERNMENT OF EGYPT (GOE) FURNISHED TRANSPORTATION SERVICES

1.59.1 General

MATERIALS UNDER TRADE AGREEMENTS (FEB 2000). The GOE freight forwarder will be responsible for transporting the equipment and materials from the Contractor's designated supplier's loading dock to the nearest port, designated by the Egyptian freight forwarder, for overseas shipping by ship to Alexandria, Egypt. Only full containers will be retrieved by the GOE freight forwarder. The estimated time of arrival at Alexandria, Egypt will be approximately ninety (90) days after the Contractor's Notice of Availability (NOA) to the freight forwarder in accordance with paragraph COORDINATION hereinafter. The Contractor will be responsible for having the equipment and materials transported from the port of Alexandria directly to the construction site within five (5) working days after delivered to the port of Alexandria. Delays in contract completion caused by the Egyptian Government or their freight forwarder may be the basis for time extension under Contract Clause 52.249-10 entitled DEFAULT (FIXED PRICE CONSTRUCTION APR 1984. Storage, by the contractor, will be at the construction site. The Contractor will not be allowed to remove this material from the site. The Contractor shall be responsible for unburdening GOE furnished containers and returning them to the port within three (3) working days. The Contractor shall coordinate with the GOE and provide a Contractor's representative at the port of Alexandria to receive and inspect the shipments prior to their transportation. A detailed inspection and inventory including representatives of the Contracting Officer shall be made within 24 hours of arrival on the project site. Any claims for shortage and/or damage shall be filed with the GOE freight forwarder within 24 hours of the inspection at the project site.

1.59.2 Use of Government of Egypt (GOE) Furnished Shipping Containers

The Contractor will not be allowed the use of GOE furnished shipping containers for storage of materials. The Contractor will be liable to the GOE or its agent for any demurrage charges resulting from the late release of containers.

1.59.3 Coordination

The Contractor shall be responsible for coordinating with the freight forwarder to obtain documentation, packaging, crating and shipping procedures. The Contractor shall provide Notice of Availability (NOA) to the freight forwarder and the Contracting Officer, two (2) weeks prior to the desired pick-up date and shall at the same time provide estimated

shipping information to include the document number, case designator, program identification, contract number, description of material, quantity, unit, unit price, shipping weight and dimensions of each piece to be shipped. When the shipment is available the Contractor shall confirm or correct the estimates already provided and advise the freight forwarder and the Contracting Officer of the availability. The Contractor shall ensure that material to be shipped is adequately packaged to withstand international surface transportation.

1.59.3.1 Egyptian Freight Forwarder

DHL DANZAS AIR & OCEAN
7465-M CANDLEWOOD ROAD
HARMONS, MD 21077
Tele: (410) 859-4170
Telex: 908222
Fax: (410) 859-3105

1.59.3.2 Shipping Status Report

The Contractor shall provide the Contracting Officer a monthly status report listing all materials to be shipped by the freight forwarder with approximate shipping schedule. The initial report should be submitted in conjunction with the schedule of construction or no later than one hundred twenty (120) calender days after Notice To Proceed. The data to be provided should include but not be limited to, document number, an identification/purchase order number, brief description of materials, schedule/actual exit dates, notice of availability to the freight forwarder, pickup date by the freight forwarder, estimated date of departure from port, vessel name, estimated time of arrival (ETA) at Alexandria and date of arrival at site.

1.59.4 Shipping Documents

Two (2) copies of the shipping documents shall be placed on the outside of package (container); one (1) to remain with the package and one (1) for the freight forwarder. Also two (2) copies of the shipping documents shall be placed inside the package.

1.59.5 Marking

The following exterior package markings shall be on each box/container.

Document Number: (See paragraph DOCUMENT NUMBER)

Unique Shipping Number: (Bldg. No. - System Application, Bid Item No.)

Case Designator:

Program Identification:

Contract Number:

Noun Nomenclature:

Quantity/Unit of Measure: (dozen, gross, etc.).

In addition to the above exterior markings, the Contractor shall be

responsible for labeling each box/container with a distinctive self-adhesive decal label. These labels will be approximately 8" x 8" square and show the name of the project in English and Arabic. The label design and material will be approved by the Contracting Officer. The Contractor will be responsible for supplying a quantity of these labels to the GOE freight forwarder.

1.59.5.1 Document Number

The Contractor should obtain the Document Number from the Transatlantic Programs Center office at P.O. Box 2250, Winchester, VA 22604-1450. Point of Contact is [name of project manager], CETAC-PD-[ ], telephone number (540) 665-[ ].

1.59.6 Alternate Transportation Arrangements

Should the GOE fail to provide the free overseas shipping, the Contractor shall notify the Contracting Officer immediately in writing, requesting direction prior to making alternate transportation arrangements.

1.59.7 Shipping Charges

The Contractor warrants that his price for this contract is exclusive of any such overseas shipping charges for equipment and materials which are incorporated into the work.

1.59.8 Payment for Material Delivered to the Government of Egypt Freight Forwarder

Payment for materials delivered to the GOE freight forwarder may be made in accordance with Contract Clause 52.232-5 entitled PAYMENTS UNDER FIXED-PRICE CONSTRUCTION (MAY 1997). Requests for payment for materials delivered to the GOE freight forwarder must include a copy of the Notice of Availability, proof that required shop drawings for equipment or materials have been approved, and proof of Contractor ownership of the materials or equipment in the form of a paid invoice or other document acceptable to the Contracting Officer.

1.59.9 Other Materials

All materials, equipment and/or supplies imported by the Contractor that will not be incorporated into the project will be shipped at the Contractor's expense, and unless shipped in accordance with Clause entitled CONTRACTOR TRANSPORTATION AND CUSTOMS CLEARANCE, the Contractor will be responsible for all charges which may be imposed thereon by the Government of Egypt.

1.59.10 Consolidated Warehouse Operation

The Contractor shall furnish a consolidating and warehousing operation. The Contractor shall submit a plan for meeting the objectives for consolidating material and equipment shipments in dedicated containers at a facility which will provide a consolidation point for vendor shipments. Containers shall be full to capacity. The operation will include analyses of procurements to be made, delivery schedules and quality control. Preference will be given to consolidation of containers by suppliers/manufacturers. Consolidated warehouse operations shall be part of the activity. Contractor's quality control representative shall approve all materials prior to packaging and loading.

****
NOTE: This clause will be used for Egyptian Air Force projects only, edit accordingly.
****

1.60 EGYPTIAN AIR FORCE (EAF) REQUIREMENTS

1.60.1 Egyptian Subcontractor

All Egyptian subcontractors that have not been previously approved by the EAF must be approved. This approval will take approximately forty-five (45) calendar days. Base passes for Egyptian subcontractors' personnel cannot be processed until the subcontractor is approved.

1.60.2 Project Manager

The Contractor's project manager shall meet with representatives of the EAF and Corps of Engineers in Egypt within forty-five (45) calendar days after contract award.

****
Note: This Clause is for Egyptian projects only and should only be used when the project includes the types of equipment listed within this clause.

Coordination between the project Manager and Designers is required. Project Manager shall prepare and Staff J&A through EC-T to Contracting Directorate authorizing the use of this clause.

Mechanical and electrical equipment Manufacturer's, Vendors, and Suppliers frequently change ownership, identity and affiliation. The Selected sources for Egyptian projects used within this baseline should be carefully verified prior to verbatim use on any project.

The following guidance is offered when conducting your review:

1. Ensure that each listed item represents firms which will meet the requirements of the Government of Egypt (GOE) - Egyptian Armament Authority. Those requirements are:

a. A recognized US manufacturer with a proven reputation for quality products.

b. The manufacturer must have an established office in Egypt that has the capability to respond to queries from the GOE regarding service, spare parts, etc, subsequent to completion of the Operation and Maintenance Phase of our contract.

c. The manufacturer must have an established office in Egypt that the capability to arrange for training if so requested from the US Manufacturer.

2. A minimum of three (3) firms must be recommended for each category of equipment.

****

1.61 USE OF PROPRIETARY SPECIFICATIONS

In the construction of this project, the following items of equipment (applicable to this project) will be manufactured by the U.S. firms listed below. The requirements of this clause take precedence over other brand names that may be specified in the Technical Provisions.

a. Electrical Equipment:

(1) Diesel Engine - Generator Sets

Manufacturer

Kohler
Cummins
Caterpillar
GM Electromotive

(2) Switchgear

Manufacturer

Westinghouse
General Electric
Siemans Energy (ELETECH)
Square D
ABB

(3) Rotary Frequency Converters

Manufacturer

Kato
Trilectron
Kurz & Root

(4) Solid State Frequency Converters

Manufacturer

Helionetics
Teledyne
Unitron
FCX Systems
Inverpower

(5) Voltage Regulators

Manufacturer

General Electric
Cooper
Siemens

(6) Fire Alarm Systems

Manufacturer

Notifire (Giza Projects)
Simplex (TTC)

(7) Telephone Systems

Manufacturer

AT&T (Orascom)
Northern Telecom

(8) UPS

Manufacturer

Exide Electronics
EME
IPM

b. Mechanical Equipment

(1) Air Handling Unit (AHU), Condensing Unit (CU), Chillers, and Fan Coils

Manufacturer

Carrier
York

(2) Fans

Manufacturer

ILG Industries
Barry Blower
Greencheck
Buffalo-Forge

(3) Controls (HVAC)

Manufacturer

Honeywell
Johnson Controls
Staefa

(4) Filters (HVAC)

Manufacturer

American Air Filters
Cambridge
Farr

(5) VAV Boxes

Manufacturer

York
Carrier

(6) Duct Heaters

Manufacturer

Indico
Warren

(7) Air Compressors

Manufacturer

Ingersoll Rand
Atlas Capco

(8) Pumps (HVAC & Plumbing only)

Manufacturer

Bell & Gossett (ITT)
Aurora
Goulds
Paco
Chicago

NOTE: No substitutions will be allowed.

1.62 USE OF MILITARY POSTAL SYSTEM (MPS) FACILITIES: (Applicable to United States Firms and Citizens ONLY)

****

Note: SC-1.62 will only be used when a U.S. Firm working on a Foreign Military sales (FMS) contract may be eligible for a contract award in Egypt.

DO NOT USE THIS CLAUSE FOR NON-FMS CONTRACTS OR FOR PROJECTS OUTSIDE OF EGYPT.

Contractors for government agencies outside the Department of Defense (DoD) or the FMS program are NOT authorized Military Postal System (MPS) privileges.

The last sentence of paragraph 1.62.2 refers to costs DoD pays the airline to carry the mail to the overseas location. All organizations outside of DoD must reimburse the MPS for these transportation costs as a condition for receiving mail privileges. If reimbursement is not guaranteed in the contract, then privileges will be denied by the MPS.

The appropriate postal squadron [83 rd Communications Squadron] must review and provide written approval to use this clause. Edit to meet

the requirements of the project.

****

1.62.1 Authorized Use

U.S. citizen employees of the Prime U. S. Contractor(s) are authorized to use MPS services to the extent available at the U.S. Embassy, Cairo, Egypt, subject to the following conditions. The use of the official indicia "Postage and Fees Paid", for any mailings is not authorized. In no event shall MPS privileges extend to subcontractors or subcontractor employees unless they are specifically authorized in the contract.

1.62.2 Use and Restrictions

The use of MPS services for personal mail is authorized up to a maximum of 70 pounds. Any mail size restrictions imposed by the MPS must be followed. The Contractor's use of MPS parcel privileges is dependent on the ability of the host (MPS) facility to support the workload and, the absence of objections by the Host Nation Government. Restrictions may be imposed during periods of high volume such as seasonal holidays and/or as deemed necessary by the Host MPS. The Contractor shall directly reimburse the Department of Defense (DoD) MPS Facility for the costs of transporting the mail from the U.S. to the overseas location. This cost is in addition to all applicable postage fees that may apply.

1.62.3 Compliance With Regulations

The Contractor agrees to insure compliance with all pertinent regulations regarding use of such facilities and to prevent abuse of MPS privileges extended to authorized personnel. MPS mail will be delivered to and received from the Contractor at the U.S. Embassy, Cairo, Egypt. The Contractor will provide to the MPS facility and the Contracting Officer a current list of U.S. employees entitled to MPS privileges under the terms of this contract. The Contractor shall update and resubmit this list to the MPS facility and the Contracting Officer once each calendar quarter.

****

This clause is for use on High Security Sites where security concerns outweigh any other factor. The purpose of this clause is to mitigate potential claims without compromising the required security. It is a generic clause written around a generic site. Use of this clause requires meticulous coordination with the applicable Site Security Office.

****

1.63 WORK IN HIGH SECURITY AREAS WHERE USE OF DEADLY FORCE MAY BE AUTHORIZED

1.63.1. General

The Site Security Office [_____] maintains the ultimate authority for establishing, monitoring, and enforcing security requirements for the security site [_____]. The Contractor shall work through the Contracting Officer to ensure that the [_____] Security Regulations at the secure site are followed. All contractor, subcontractor, or vendor personnel and vehicles at any tier working at any location on the secure site [____] are subject to a thorough search upon entering, departing, or at any time deemed necessary by the secure site [_____] Security Personnel. The Contractor shall be responsible

for compliance will all the security requirements. The Government reserves the right to deny access or to require the contractor to remove any personnel or equipment deemed to be a threat to the security of the secure site [_____].

1.63.2. Employee Background and Security Investigations

The Contractor shall be required to prepare and maintain personal background and historical information forms on each employee. These forms may be reviewed by the Site Security Office [_____].

1.63.2.1 Required Information

The required information shall include but not necessarily be limited to the following:

a. Full name.

b. Place and date of birth.

c. Three (3) current color photographs.

d. Fingerprints, complete set

e. [Central Population Record (CPR)] [_____] card number.

f. Copy of Citizenship/Nationality identification.

g. Copy of Passport.

h. Copy of drivers license.

i. [_____] Police Background Check.

j. Work History.

k. Personal background information.

l. Copy of Work permit and/or Visa.

m. Permanent home of record and in-country address.

n. Other information mandated by local law, the [Military] [Base] [_____] Security Regulations or that may be required to coordinate and process the necessary documentation with the government offices responsible for the approval.

o. Registration, insurance company, policy number and expiration date for each vehicle.

1.63.2.2 Security Investigation

The following background and security checks shall be required for all Contractor personnel:

Description	Approximate Time Required to Perform
[_____]	[_____]

1.63.2.3 Non-Compliance

If the Contractor fails or refuses to promptly provide any or all of the information required by the Site Security Office, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.63.3. Maximum size of Workforce

The maximum size of the workforce within the controlled area at any one time will be restricted to [____].

1.63.4. Site Entry Requirements

Prior to work each day, the contractor shall present a list of workers to the Site Security Office. This list shall include but not necessarily be limited to the following:

Name
Occupation
Work Itinerary
[____]

1.63.5. Employee Identification

1.63.5.1 General

The Contractor shall be responsible for requiring each employee engaged on the work, to display identification as approved and directed by the Site Security Office and the Contracting Officer. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

1.63.5.2 Preparation Schedule

A minimum of [____] days prior to the proposed start of work, the Contractor shall provide through the Contracting Officer to the Site Security Office, the list of employee's proposed for this work. A minimum of thirty-five [____(__)] work days shall be allowed for Government review and certification of badges. This list shall include but not necessarily be limited to the following:

Employee's full name
[____]

1.63.5.3 Preparation of Identification Badges: The Contractor shall be required to prepare a written application inclusive color photographs and provide all materials and labor necessary to prepare a [bilingual] [English/Arabic] [English/_____]identification badge, laminated in plastic, containing the employee's name, badge number, color photo, height and weight, the name of the Contractor's organization [and ____]. The Site Security Office [_____] will certify each draft badge by signature, stamp, seal or any combination thereof. Upon certification by the Site Security Office [_____], the badges [____] [will be returned to the Contractor for final preparation, lamination, and issuance.]

1.63.5.4 The contractor will be permitted to obtain badges/entrance

authorization for additional workers to cover sickness, absence etc.
[_____]

1.63.6 Inspections

1.63.6.1 Vehicle Inspections

A minimum of fifteen (15) minutes will be required to inspect each vehicle. Vehicles containing cargo (including bulk material such as soil or stone) may require longer periods for inspection.

1.63.6.2 Identification of Contractor Vehicles

The Contractor shall be responsible for requiring each vehicle engaged in the work to display permanent vehicular identification as approved and directed by the Site Security Office [____] and the Contracting Officer.

1.63.6.3 Individual Worker/Employee inspections

A Minimum of five (5) minutes per person will be required. Workers with tool boxes and/or tool belts may require longer period for inspection.

****
See paragraph 1.63.10.3 entitled LUNCH BREAK for a possible options on Lunch and paragraph 1.63.7.3 entitled TOILET FACILITIES for toilets.
****

1.63.6.3 Entry and Egress Inspections

Vehicle Inspections and Individual Worker/Employee inspections as indicated in the previous paragraphs will be required upon each and every entry and egress. [This will include but not necessarily limited to lunch as well as visits to the toilet and/or other breaks.]

1.63.7. Storage of tools, equipment, and building materials at the site

****
There are two (2) versions of paragraph 7.1. Storage of materials and equipment within the controlled areas of a secure site may involve security issues that might compromise site security. Use of this version requires meticulous coordination with the applicable Site Security Office.
****

1.63.7.1 [option 1]Advance Staging of Construction Materials

[The Contractor is encouraged to bring construction materials on-site a few days in advance of needing them. This will facilitate security checks and help mitigate construction crews from sitting idle awaiting needed construction materials and equipment. The proposed materials and schedule shall require prior review and approval by the Site Security Office.

1.63.7.1.a Acceptable Storage of Construction Materials

Final placement of construction materials and equipment shall be coordinated between the Contractor and the Site Security Office [____] to determine acceptable storage methods. The Site Security Office [____] shall daily inspect the Contractor's proposed storage methodology. Materials stored within the controlled area of the secure site shall be stored in strict conformance with the requirements imposed by the site

Security Office. The contractor is cautioned that these requirements may change without notice and should anticipate such occurrences. If the Contractor fails or refuses to promptly store construction materials and equipment as required by the Site Security Office, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken or at the discretion of the Site Security Office, require the contractor to remove all stored material and equipment from the controlled area of the site. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.63.7.1.b Disabling of Equipment

Equipment stored on site shall be disabled with the disabled part given to the Site Security Office for the night. If it has a key, the key will also be turned over to the Site Security Office for the evening.

****

There are two (2) versions of paragraph 1.63.7.1. Storage of materials and equipment within the controlled areas of a secure site may involve security issues that are unacceptable to the Site Security Office. Use of this version is therefore required.

****

1.63.7.2 Option 2[Daily Removal of Material, Tools and Equipment]

[With the exception of material incorporated into the work, all remaining construction material, tools and equipment must be removed from the controlled area of the site at the completion of each work period. This includes bulk materials including but not necessarily limited to sand, cement, asphalt, gravel and other soil materials, stone, concrete masonry units, fired brick, reinforcing steel (rebar), and structural steel.]

1.63.7.2 [Storage Outside the Controlled Area]

[Limited storage of tools, equipment, and building materials may be allowed to be staged outside the controlled area as indicated on drawing ____ if approved in writing by the site security office.] [Storage of tools, equipment, and building materials may be allowed to be staged outside the controlled area as indicated on drawing ____].

1.63.7.3 Toilet Facilities

[A] Portable toilet[s] [shall not] [will] be allowed within the controlled area of the secure site.

1.63.8 Equipment Restrictions

The maximum amount of equipment allowed within the controlled area at any one time will be restricted as follows: [____].

1.63.9 Availability of Guards

The Site Security Office will provide [a maximum of] [____] guards. These guards will be available [____] days a week [____ through ____] [on the following days _____ excluding ____] during the following hours [____]. During seasonal holiday periods [such as Christmas, Ramadan] Guard availability will severely restricted or unavailable. Guards will also be unavailable on [US Holidays] [Host Nation Holidays] [Military Training

and/or down days]. There will be no exceptions.

1.63.10 Special Work Hours

1.63.10.1 Work Day

Commencing at 0730 [____] the Site Security Office will make the first security check on the first worker, vehicle, or piece of equipment. The period of time it takes to process the work crew and their vehicles and equipment for any given day, will be deducted from 1630 [____] to ensure that the controlled area of the secure site is cleared NO LATER THAN 1630. The time required by the Contractor's crews for end of day preparations (clean-up, pickup tools, special security requirements, etc) shall be considered by the Contractor and factored into his operations to ensure that all personnel, vehicles, and equipment are off the site prior to 1630 [____] hours. The length of the average work day will be significantly less than eight (8) hours.

1.63.10.2 Management Inspections of Work

Senior Management, Quality Control, Accident Prevention, and other professional staff members who need to inspect the progress and acceptability of the work must be pre-approved as established elsewhere in this clause. Subsequent to approval, visits will require prior coordination with the Site Security Office a minimum of one (1) hour in advance of the proposed visit. Physical entry into the site will be in accordance with established procedure.

1.63.10.3 Lunch Break

Workers [shall not] [will] be allowed to eat lunch within the controlled area of the secure site. [The Contractor will be allowed to provide his workers with a hot lunch.]

1.63.11 Unscheduled Security Alerts

For bidding purposes, the Contractor shall anticipate unscheduled removal from the controlled area of the secured site an average of [____] hours per [____] [day, week, month etc].

1.63.12 Work restrictions and Constraints

****

The following is a list of generic restrictions and constraints. They are provided only as a guide. Additional restrictions and constraints most likely apply to your specific site. Use of a paragraph similar to this one is essential to mitigate claims and cost overruns and requires thorough coordination between TAC and the Site Security Office.

****

1.63.12.1 Work Near the Double Fence

When working within ten (10) meters [thirty (30) feet] of the double fence, an escort must be requested and made available from the Site Security Office [____].

1.63.12.2 Fence penetrations

There will be no more than one (1) fence penetration at any time. The second shall not start until the first is completed and approved by the Government. The secure site has two (2) fences: an inner and an outer fence. Only the outer or the inner fence (NEVER BOTH) may be open at a time. Penetrations may NEVER be made through both fences simultaneously.

1.63.12.3 Restricted Use of Plastic Foil Marking Tape

The plastic/foil marking tape used to identify the location of the buried lines shall NOT be used between the inner/outer security fences. In these areas only, tape without the metal backing will be used.

****

Use of underground cable detecting devices is rarely authorized on a secure site. Sensitive communications lines include various Intrusion Detection Systems as well as CCTV video lines. The locations of these cable runs is restricted information which must be safeguarded by the Site Security Office without compromise. Given these constraints, every effort possible must be expended to prevent these cables from being accidentally compromised during construction operations. This paragraph provides one solution.

****

1.63.12.4 Sensitive Communication Lines

Sensitive communication lines exist within the controlled area of the secure site. The Contractor must coordinate with the Site Security Office to monitor all work which might endanger these line. Use of a cable or metal detector within the controlled area of the secure site [shall not] [will] be allowed. [There will be no exceptions to this requirement.] All excavation within the controlled area of the secure site shall be clearly flagged or marked a minimum of [____] [days] [hours] prior to commencement of work. The Government and the Site Security Office reserves the right to utilize the Contractor's cable/metal detecting device required elsewhere in this contract to conduct searches to ensure that areas flagged by the Contractor for excavation, do not conflict with Sensitive communication lines. Use of the Contractor's equipment will be at no additional cost to the Government.

1.63.12.5 Vibratory Compactors

The Contractor shall be required to conduct a pre-work test in the presence of the Government and the Site Security Office prior to use of any vibratory hand held plate compactor/tamper or other machinery that, in the opinion of the Site Security Office, may interfere with the in-place security system.

1.63.12.6 Fence Foundation

A concrete foundation of unknown depth extends the length of both the inner and outer fence. Backfilling under this barrier shall be with lean concrete.

1.63.12.7 Depth of Fence Penetrations

Depth of fence penetrations between the inner and outer fence shall be a minimum of 48 inches [1 meter 22 cm] plus the diameter of the line or pipe.

1.63.12.8 Hand Digging

In the area within the inner and outer fences there will be no machine digging. 100% of this work shall be performed by hand. Picks and or mattocks shall also not be used in this area.

1.63.12.9 Unrestricted Site Access

The Site Security Office must NEVER have access to the site denied e.g., road cuts, material deliveries, equipment operation, etc.

1.63.12.10 Coordination of Daily Activities

The Contractor shall coordinate each days activities with the Site Security Office prior to the start of each days work.

1.63.12.11 Demarcation Work Line

A Demarcation work line shall be established by the Site Security Office [____]. Workers needing to go outside this area shall ask permission from the guards and/or escorts. This shall include but necessarily be limited to obtaining materials, going to toilet, taking breaks etc.

1.63.12.12 Restriction on Open Excavations

All excavations shall be back-filled at the end of each days work. THERE SHALL BE NO EXCEPTIONS REGARDLESS OF SIZE. The Contractor may backfill unfinished excavations with sand if approved in writing by the Contracting officer and the site Security Office.

1.63.12.13 Flushing of Water Lines

When flushing water lines, the water may not be discharged within the controlled area of the secure site. The contractor shall develop a plan for Government review and approval to flush the lines from outside the controlled area of the site.

1.63.12.14 English Speaking Representative

The contractor shall have an English speaking representative at the site at all times. No exceptions shall be allowed.

1.63.12.15 Excavated Materials

All excavated materials shall be a minimum of ten (10) meters [thirty (30) feet] away from the double fence at all times. No excavated material shall be left on site overnight. It is strongly recommended that the excavated material be loaded directly onto a truck and removed immediately from the site. This includes topsoil. Excavated material shall be inspected prior to departing the site.

1.63.12.16 Accident Prevention Requirements

Due to the controlled nature of the work site, lighting at night, and the

requirement to fill in open excavations each evening, safety barricades will not be needed for this portion of the work after work hours. The Activity Hazard Analysis for this portion of the work shall specifically address the proposed methods for mitigating and minimizing accidents while work is in progress.

1.63.12.17 Unannounced Closing of the Site

If during the work it becomes necessary to close the controlled area of the secure site for security reasons, the Site Security Office will direct the work force to proceed to [the] [a] designated evacuation point. This may be within the controlled entry area or outside the controlled area. The following should be done to the tools/equipment:

[_____]

1.63.13 Construction Operations Plan

The Contractor shall submit to the Contracting Officer, within [thirty (30)] [_____] work days prior to the proposed start of work within the controlled area of the secure site, his proposed construction operations plan. This plan shall cover all elements for issuance of the access passes, construction security operations, storage of materials & equipment, schedule including daily manpower projections, lost passes, vehicle passes, and unannounced closure of the site for security reasons. The plan shall address in detail the contractors proposed procedures, and organization necessary to produce and maintain effective security twenty-four (24) hours a day seven (7) days a week.

****

SPECIAL CLAUSE (SC) 1.64 UNEXPLODED ORDNANCE

This clause is currently NOT authorized for use. UXO requirements shall be coordinated with the TAC Safety and Occupational Health Manager. additional information may be obtained from the UXO TCX at CEHNC-OE. As of April 2003, the point of contact is as follows:

H.Glenn Earhart
U.S. Army Corps of Engineers
Engineering & Support Center, Huntsville
P.O.Box 1600
Huntsville, AL 35805 or FED EX - 4820 University Place
Huntsville, AL 35816
(O) 256-895-1577
NEW Cell 256-990-1852
(Fax) 256-895-1378
email glenn.h.earhart@hnd01.usace.army.mil

This clause is for use on a project where known or suspected unexploded ordnance (UXO) may exist. The purpose of this clause is to mitigate potential claims by supplementing a specification that specifically identifies and addresses the required UXO Scope of Work. This is a general clause written in generic format and requires meticulous coordination with the customers UXO specialists to meet specific needs of individual projects. At a

minimum, the following issues must be addressed and researched during the investigative/design phase:

1)- What is the level of UXO support required during construction?

a. Is the probability of encountering UXO low i.e., remediation has been performed and the site cleared but unplanned UXO safety support may be required during construction.

b. Is the probability of encountering UXO is moderate to high i.e., remediation has not been performed and construction must be held in abeyance pending completion of the remediation effort. Unplanned UXO safety support is likely to be required during construction.

c. Is the probability of encountering UXO is abnormally high i.e., teams of UXO qualified personnel will be needed to conduct both surface and a subsurface clearance of the known construction footprint and remove all discovered UXO prior to the start of construction. The probability for unplanned UXO safety support during construction is pronounced.

2)- Documented records and research within the contract documents indicating the types and extent of UXO that is known or suspected to be encountered. This includes complete specifications, ordnance recognition charts, disarming instructions, unique characteristic's, features, nature, peculiarity(ies), as well as lessons learned concerning each type and variant of UXO that is known or suspected to be encountered. Known or suspected UXO may include: Buried Ordnance; Near Surface Ordnance; Sub Munitions; Mines.

3)- Surveying, mapping, and identification within the contract documents of the types and locations for known and suspected UXO.

4)- Documented records and identification within the contract documents of all exposed and buried utilities/service lines (electric, gas, water, chilled water, steam, sewer, etc) and the means for their control.

5)- Identify within the contract documents the different site characteristics such as soil type, moisture content, depth of groundwater, vegetation etc. The performance of UXO detection instruments vary depending on these characteristics.

6)- Identify within the contract documents utility locations and sources of electromagnetic Radiation (EMR) in the radio frequency range originating from devices such as radio, radar, television

transmitters, antennas, communication and radar devices.

7)- Will sampling and cleanup of soils contaminated with primary and secondary explosives will be necessary? If so, identify the procedures.

8)- Are geographic investigation goals, clearance goals, or geographic phasing within the construction limits necessitated by either the customer, the project schedule, or made necessary by other circumstances? If so identify the scope of work and coordinate same with Contract Clause 52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK and 52.211-12 LIQUIDATED DAMAGES-CONSTRUCTION.

9)- When this clause is used, specification section 01451 entitled CONTRACTOR QUALITY CONTROL paragraph 3.4.3 CQC Personnel as well as the Experience Matrix shall reflect the need for a UXO specialist within the Contractor's Quality Control Organization. This individual shall also be qualified as an UXO Safety Specialist and provide safety oversight on all UXO activities. The following language is recommended:

"The UXOCQC/Safety Specialist is responsible for the quality control of all surface and subsurface clearance activities and ensuring that only those procedures and processes conforming to the contractual requirements and accepted plans are implemented. The UXOCQC/Safety Specialist shall perform daily CQC reviews of all field activities as indicated in the SC entitled UNEXPLODED ORDNANCE. The UXOCQC/Safety Specialist shall develop a Quality Control Plan (QCP) outlining the quality activities to be used for continually assessing the implementation, effectiveness, compliance, and adequacy of operations."

****

1.64 UNEXPLODED ORDNANCE

****

In May 1997, the office of the Under Secretary of Defense for Acquisition and Technology created the Unexploded Ordnance Center of Excellence (UXOCOE). The Joint UXO Coordination Office (JUXOCO) located at Ft. Belvoir, Va., is the operational arm and provides the day-to-day management, coordination and information clearing house functions of the UXOCOE. Key ongoing actions of the JUXOCO include:

Building and maintaining a UXO detection and clearance database.

Standardizing target UXO (including landmines) for testing and evaluation.

Establishing benchmarks, metrics, and milestones for

technology development and transition.

There website may be located at the following URL:

http://www.uxocoe.brtrc.com/index.htm

The Points of Contact page may be located at the following uRL:

http://www.uxocoe.brtrc.com/JUXPageitems/pointsof.htm

****

1.64.1 General

The requirements of this clause are in addition to and supplement EM 385-1-1 U.S. Army Corps of Engineers Safety and Health Requirements Manual.

****

Use this paragraph when remediation has been performed on the site but UXO safety support may be required during construction.

****

1.64.1.1 UXO Safety Support During Construction

[____location____] has been cleared by an Explosive Ordnance Disposal (EOD) [team] [contractor] [____]. However, unexploded ordnance (UXO) may be discovered and/or uncovered within or around the construction work areas. It is the responsibility of the Contractor to be aware of the risk of encountering UXO and to take all actions necessary to assure a safe work area to perform the requirements of this contract. [If at any time during contract performance, the Contractor becomes aware of or encounters UXO or potential UXO, the Contractor shall immediately stop work at the site of the encounter, move to a safe location, notify the contracting Officer, and mitigate any delays to scheduled or unscheduled contract work. The Contractor shall not perform nor incur any costs for the removal or disposal of UXO. The Contractor assumes the risk of any and all personal injury, property damage or other liability, arising out of and resulting from any Contractor action hereunder.] [In these cases the contractor shall be required to identify and dispose of the ordnance.]

****

Use this paragraph when remediation has not been performed and the probability of encountering UXO is moderate to high i.e., remediation has not been performed and construction must be held in abeyance pending completion of the remediation effort. Unplanned UXO safety support is likely to be required during construction.

****

1.64.1.1 UXO Support Prior To Commencement Of Construction

[____location____] [has not] been cleared by an Explosive Ordnance Disposal (EOD) [team] [contractor] [____]. UXO qualified personnel must conduct [a subsurface] [both a surface and subsurface] clearance of the known construction footprint and remove all discovered UXO prior to the start of construction.

1.64.1.2 Background

The [____location____] was occupied by ____ forces after the [invasion of the country] [____]. During the [air] [____] war, forces heavily attacked the [____] in an effort to destroy the forces occupying the facilities. Numerous types of unexploded ordnance remain on the [____] [bases] [from the occupation and subsequent liberation, some of which pose a threat to [unwary] [unescorted] visitors.] Visitors and workers to these facilities must be careful at all times to avoid disturbing unexploded ordnance, and should stay away from suspicious objects. This advice should be considered even in areas listed as having been cleared by Explosive Ordnance Disposal teams since there is always a chance that ordnance was missed. All personnel wishing to visit these sites must receive an UXO safety briefing and be escorted at all times. The [____] has personnel available to give unexploded ordnance (UXO) safety briefings.

1.64.1.3 Site Geophysical Characteristics

[include but are not necessarily limited to the following]:

[____soil type____]
[____moisture content]
[____depth of groundwater]
[____vegetation____]
[____]

1.64.2 Ordnance Removal Requirements

1.64.2.1 UXO Investigation

The Contractor shall provide all labor, materials, and equipment necessary to perform UXO investigation and removal. The Contractor shall furnish the required UXO qualified personnel, equipment, instruments, accessories, and transportation, as necessary, to accomplish the required services and furnish to the Government reports and other data, together with supporting material developed while providing UXO support services. During the implementation phases, the Contractor shall provide adequate professionally qualified supervision and quality control to ensure the quality, safety, and completeness of the work.

1.64.2.2 Ordnance Identification

It will be the responsibility of the contractor to perform all ordnance identification and incidental removal actions as required to perform the requirements contained in this contract. The Contractor shall perform all ordnance removal actions necessary to assure safe/clear work areas for all contractor [,_____] and Corps of Engineer employees.

****
Paragraph 1.64.2.3 The "buddy system" must be employed at all times. The minimum number of UXO personnel shall be composed of paired teams. The number of UXO teams will vary depending upon site and task specific conditions/requirements, total level of effort, as well as schedule.
****

1.64.2.3 Personnel

The contractor shall obtain the services of a minimum of [____ (__)] [three (3)] qualified Explosive Ordnance Disposal (EOD) personnel for the duration of the construction contract. The EOD personnel will have the necessary equipment to satisfactorily complete the identification and/or removal actions described herein.

a. A Senior UXO Supervisor (SUXOS) will be on-site when multiple UXO teams are engaged in UXO activities.

b. An UXO Safety Supervisor (UXOSO) will be required on all subsurface clearance projects.

c. An UXO Quality Control Specialist (UXOQCS) will be required on all subsurface clearance projects.

****
Paragraph 1.64.2.3d. Due to the intense (life and death) nature of UXO work, the work periods specified may be reduced, but should not be increased.
****

d. UXO personnel involved in performing UXO tasks shall be limited to an eight (8) hour workday and a forty (40) hour workweek. Each workweek shall be separated by a minimum of 48 hours of rest.

1.64.2.4 Type And Extent Of UXO

The Contractor shall be required to remove/dispose of UXO which could interfere with the accomplishment of the work contained in the contract documents or might result in the creation of an unsafe area in areas frequented by contractor and/or Corps of Engineers (CE) employees. The types and extent of UXO that is known or suspected to be encountered include but is not necessarily limited to:

UXO Type	Anticipated Scope
[munitions]	[____]
[land mines]	[____]
[personnel mines]	[____]
[cluster bombs]	[____]
[explosive residue]	[____]
[____]	[____]

1.64.2.5 Other Requirements

UXO removal/disposal shall be in accordance with:

The approved UXO Work Plan, Site Safety and Health Plan, [and the] Explosive siting Plan [____]

[____Host Government____] requirements

[Contracting Officer]

The applicable provisions of the Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1

[____]

1.64.3 Explosives Safety

There are no "safe" methods for dealing with UXO, merely procedures and process controls that are designed to reduce potential hazards. Maximum safety in any UXO response can be achieved through adherence to applicable safety precautions, a planned approach, and intensive supervision and UXO safety oversight. UXO qualified personnel will conduct a UXO-related site safety briefing prior to commencing operational activities each workday. All activities with potential exposure to ordnance and explosives will be reviewed to identify the associated risks and proposed mitigation procedures. Operations within areas suspected of containing UXO must be conducted in a manner that exposes the minimum number of people to the smallest quantity of explosives for the shortest period of time. During UXO subsurface clearance actions, all non-essential project personnel will withdraw to a location outside of the exclusion zone.

1.64.3.1 General Safety Considerations

General safety considerations applicable to personnel, both essential and non-essential, at project sites where UXO may be encountered include:

a. Do not carry fire or spark-producing devices.

b. Do not conduct explosive or explosive-related operations without approved procedures and proper supervision and UXO safety support.

c. Do not become careless by reason of familiarity with UXO or the reported probability level of UXO contamination.

d. Do not conduct explosive or potentially explosive operations during inclement weather.

e. Avoid contact with UXO except during UXO clearance operations.

f. Conduct UXO-related operations during daylight hours only.

g. Employ the "buddy system" at all times.

1.64.3.2 Activity Hazard Analysis (AHA) Briefings

a. Activity Hazard Analysis's shall be prepared in accordance with the Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1.

b. Hazard analyses will be prepared and briefed by personnel that are knowledgeable in UXO and explosives safety standards and requirements. These personnel should understand the specific operational requirement and hazard analysis methodologies. A hazard analysis will be performed for each activity to determine the significance of any potential explosive-related hazards. Explosive residues may be discovered or exposed during UXO operations in the form of powder or various granular and powder based pellets. These contaminants can enter the body through the skin or by ingestion if proper personal hygiene practices are not followed. Explosive fillers such as white phosphorus are dangerously reactive in air and acute exposure can result in serious injury to the skin, eyes, and mucous membranes. They are also a fire hazard.

Safety requirements (or alternatives) that will either eliminate the identified hazards, mitigate or control them to reduce the associated risks to an acceptable level will be developed. The adequacy of the operational and support procedures that will be implemented to eliminate, control, or abate identified hazards or risks will then be evaluated and a second risk assessment completed to verify that a satisfactory safety level has been achieved.

1.64.3.3 Hazards Of Electromagnetic Radiation To Ordnance

Some ordnance items and other electroexplosive devices (EEDs) are particularly susceptible to electromagnetic radiation (EMR) in the radio frequency range. The location of all potential sources of electromagnetic radiation (EMR) in the radio frequency (RF) range originating from devices such as radio, radar, and television transmitters, shall be documented. The UXO Contractor shall coordinate with the appropriate agency(ies) or company(ies) and establish the means for their control prior to commencement of work. In addition, active and passive subsurface detection devices emit EMR/RF. Each type of equipment producing EMR/RF must be reviewed and an Activity Hazard Analysis completed. The level of EMR/RF susceptibility and potential hazard is a result of the design and type of ordnance item that may be present. Therefore, a knowledge of what ordnance is normally unsafe in the presence of EMR/RF is important so preventive steps can be taken if the ordnance is encountered.

1.64.4 Personal Protective Equipment (PPE)

1.64.4.1 PPE For UXO Operations

All UXO team members should be trained in the use of, medically qualified for, and physically able to wear, the prescribed PPE. PPE for UXO support operations will be determined by site-specific and task-specific analyses, documented in the site-specific SSHP, and worn as indicated in the plans. Specific requirements for PPE are described in the following paragraphs.

a. PPE will comply with the more stringent requirements of EM 385-1-1, US Army Corps of Engineers Safety and Health Requirements Manual, and the applicable portions of 29 CFR 1910 Subpart I or 29 CFR 1926 Subpart E.

b. Footwear: In addition to the applicable requirements in the references cited above, shoes or boots with high traction soles and ankle protection will be used. During geophysical detection activities, UXO support personnel will not wear safety shoes or other footwear that would cause interference with instrument operations.

c. Clothing: Short sleeve shirts and long pants are considered the minimum clothing suitable for UXO support work and will be worn at all work sites, unless variations are described, analyzed and documented in the accepted SSHP.

d. Head Protection: Personnel working in or visiting designated hard hat areas will be required to wear head protection meeting American National Standards Institute (ANSI) Z89.1 standards. Hard hat areas for UXO support activities should not be designated unless the activity hazard analysis shows a possible overhead hazard.

1.64.4.2 PPE Limitations

UXO support personnel using PPE will be knowledgeable of the limitations of the selected PPE as well as the reduced performance levels the equipment might pose while conducting assigned tasks.

1.64.5 Fire Prevention

1.64.5.1 Fire Prevention Awareness

Fire prevention awareness is especially important in areas suspected of being contaminated with UXO. Smoking should only be permitted in controlled areas where all combustibles (e.g., vegetation, fuel cans, sampling supplies) have been removed or sufficient firebreaks have been established. Personnel may attempt to extinguish minor fires with fire extinguishers if they are trained to do so safely without endangering themselves or others within the vicinity of the fire.

1.64.5.2 Uncontrollable Fire

If a fire becomes uncontrollable or extends into areas with unknown UXO contamination, all personnel must immediately suspend any fire fighting efforts and retreat to a safe distance, which is at least the maximum fragment distance of the Most Probable Munition (MPM). Personnel should retreat upwind of the fire. The senior UXO qualified person present should then lead an immediate evacuation of the area using available resources to ensure the safety of all personnel.

1.64.6 Emergency Procedures

UXO support activities may result in accidents or incidents, regardless of the safeguards implemented. All personnel must be briefed on the emergency response procedures and protocols discussed in the Site Safety and Health Plan (SSHP).

1.64.6.1 Emergency Response

In the event of a UXO-related emergency on-site, the senior UXO qualified person present will direct the course of action until the local POC designated in the Work Plan has been notified. It may be necessary for other on-site personnel to provide assistance. If an emergency response rescue operation is required, no one will reenter the accident area until the hazards of the situation have been assessed by the responsible person, and all required resources are on-hand to complete the rescue without jeopardizing the safety of rescue personnel.

1.64.6.2 Emergency Rescue

The senior UXO qualified person or the local POC, as applicable, will direct any UXO related emergency response rescue operation. Response considerations include the following elements:

(a) Designation of an emergency response vehicle(s) to remain on-site during rescue operations.

(b) Determination of existing hazards, as well as the potential for additional hazards.

(c) Coordination with the Contracting Officer.

(d) Assessment of the situation and condition of any victims.

(e) Determination of the resources needed for victim stabilization, transport, and additional emergency support.

(f) Enforcement of the Buddy System. No one will be permitted to enter a rescue area alone.

(g) Oversight of the removal of injured personnel from the area.

(h) Consultation with on-site safety officers to establish decontamination protocols. Decontamination of injured parties will be accomplished after stabilization of their medical conditions. This action need not be accomplished if their condition poses immediate threat to the victim's life or may cause additional injury. If contamination is suspected, the victim will be wrapped in material to prevent the spread of contamination during extrication and transport. Emergency medical personnel will be advised on potential injuries, as well as potential contamination, of the patient as early as possible. The patient will not be transported to a medical facility without prior notification of, and coordination with, the receiving facility regarding potential contamination.

1.64.6.3 Mishap Reporting And Investigation Requirements

The following information provides guidelines to be followed for reporting mishaps involving UXO operations.

a. Reporting Requirements. All mishaps will be investigated by the contractor and reported to the Contracting Officer.

(1) The senior UXO-qualified person on-site is responsible for mishap reporting. For subsurface clearance projects in support of construction activities, the contractor's UXO Safety Officer (UXOSO) is responsible for mishap reporting.

(2) Chemical Warfare Materiel (CWM) Incidents. Incidents involving CWM will be identified, documented, and coordinated with special requirements from the Contracting Officer.

b. Investigation Requirements: In the event of a mishap, the contractor will implement emergency procedures and secure the scene to keep unauthorized persons away for their protection and to preserve the evidence for subsequent mishap investigation. On military, Host Nation or U.S. Government installations, the [local authority] [____] maintains the prerogative to investigate explosive mishaps.

1.64.7 Execution

1.64.7.1 Pre-Work Meeting

The UXO team should meet with on-site management and construction personnel and conduct a general pre-work briefing including:

a. Known and suspected site hazards and site specific safety considerations.

b. UXO safety support procedures.

c. Responsibilities and lines of authority for any UXO-related response.

d. Emergency response procedures.

e. A physical preview of the actual construction footprint with the both the Construction Contractor and the government to discuss visual observations and potential areas of concern. This includes but is not necessarily limited to building and/or war debris, vegetation removal, topography, soil conditions, seasonal climatic conditions, utility locations and sources of electromagnetic Radiation (EMR) in the radio frequency range originating from devices such as radio, radar, television transmitters, antennas, communication and radar devices.

1.64.7.2 Indoctrination, Training And Instruction

The contractor shall ensure that UXO personnel receive the appropriate training, medical surveillance, and personal protective equipment required to safely perform all clearance efforts.

a. Prior to commencement of work UXO personnel shall review archival information regarding the work area and interview personnel knowledgeable of site conditions. The probable types of UXO that is known or suspected and the specific safety considerations for each, shall be ascertained.

b. All employee's engaged in UXO activities shall be instructed in the UXO Work Plan [____] and the Site Safety and Health Plan (SSHP) approved by the Government to the extent necessary to conduct their activities in a safe manner.

****
NOTE: Paragraph 1.64.7.2 c. TAC FORM 357 will be prepared as necessary by revising/retitling TAC FORM 356.
****

c. The Contractor shall develop an attendance roster or a similar document indicating each employee's attendance. Each employee instructed shall be required to sign this document for each and every class, subject and/or topic that instruction was provided for. The Contractor's failure to have an employee's attendance verified in writing, may be cause for the Government to order the Contractor to repeat the instruction where evidence of attendance can not be verified. No part of the time lost due to such repeat instruction shall be made the subject of claim for extension of time or for excess costs or damage by the Contractor. Within ten (10) working days after completion of training conducted in accordance with this clause [and/or the applicable Technical Provision section], the Contractor shall complete and submit TAC Form [356 "Operation and Maintenance] [357 UXO] Training Validation Certificate". The attendance roster shall be included as an attachment to TAC Form [356] [357].

1.64.7.3 Safety Briefings And Visitors

The UXO Contractor shall conduct UXO safety briefings for all site personnel and visitors including explosive ordnance recognition, location,

and safety functions.

a. UXO qualified personnel shall meet all visitors and ascertain their specific requirements and objectives, and conduct a general work and safety briefing prior to commencing a transit of any UXO area.

b. Visitors shall be escorted at all times by UXO personnel. Escorted personnel will follow behind the UXO escort. If anomalies or UXO are detected, the UXO escort will halt escorted personnel in place, select a course around the item, and instruct escorted personnel to follow.

1.64.7.4 Safety

a. UXO PLANS: All clearance actions shall be accomplished in strict accordance with the Government approved UXO Work Plan and Site Safety and Health Plan (SSHP).

b. SAFETY SIGNS: All areas known or suspected of containing UXO shall be posted with appropriate signage and cordoned off to prevent inadvertent entry by unwary individuals.

c. EXCLUSION ZONES: Exclusion zones shall be established and clearly identified. During UXO operations, personnel not directly involved in the specific UXO clearance task must be physically escorted to a location outside the exclusion zone.

1.64.7.5 On-Site Authority

The UXO Safety Supervisor (UXOSO) has final on-site authority on all UXO matters.

1.64.7.6 Access Survey

The team must conduct a surface access survey and a subsurface survey for anomalies before any type of activities commence, including foot and vehicular traffic. The team will conduct an access survey of the footpath and/or vehicular lanes approaching and leaving areas with known or suspected UXO contamination. The access route shall be at least twice as wide as the widest vehicle that will use the route. The UXO team must also complete an access survey of an area around the site that is large enough to support all planned operations. The size of the surveyed area will be site-specific and will take into account, for example, maneuverability of required equipment (e.g., drill rigs, excavation equipment, etc.), parking of support vehicles, and establishment of decontamination stations. As a minimum, the surveyed area should have a dimension in all directions equal to twice the length of the longest vehicle or piece of equipment to be brought on-site.

1.64.7.7 Calibration

Prior to use in the field each day, geophysical instrumentation shall be checked for operational reliability and calibration against an item with a known response. Copies of instrument checkout and calibration verification shall be maintained on-site. If calibration checks indicate that the instrument is not operating within an acceptable range and field adjustments do not resolve the discrepancy, the instrument shall be immediately tagged and removed from service.

1.64.7.8 Maintenance

Preventative maintenance shall be performed on a regularly scheduled basis. If an equipment problem is encountered, maintenance shall be performed as soon as possible and records of the unscheduled maintenance and corrective action shall be maintained and shall indicate equipment identification, problem description, corrective action, the person performing the maintenance, and associated costs.

1.64.7.9 Deteriorated Explosives And Damaged Equipment

Explosives or equipment (including accessory equipment) that is deteriorated or damaged, shall immediately be removed from service.

1.64.7.10 Vibration Perimeter

Prior to commencement of UXO removal work, a vibration free zone shall be determined. This area shall be coordinated with the Contracting Officer and clearly establish what type of machinery and equipment may or may not be operated within the established boundaries.

1.64.7.11 Utilities

The UXO contractor shall coordinate with the appropriate agency(ies) or company(ies) to identify, mark and verify the location of all surface and subsurface utilities. Additionally, the means for their control shall be identified and confirmed, prior to the commencement of work. Subsurface utilities/service lines may include but are not necessarily limited to: electric; gas; water; chilled water; steam; sewer; etc. The UXO team shall take appropriate measures to locate utility lines that may not be made of ferrous material.

1.64.7.12 Flagging

The UXO team will establish a system of flagging colors that will distinguish buried UXO, surface UXO, route boundaries and utilities.

a. When UXO is encountered, it will be marked with survey flagging and pin flags.

b. All located utilities shall be marked by paint, pin flags, or other appropriate means to visually delineate their subsurface routing. The color shall not conflict with the colors used in UXO activities.

1.64.7.13 Excavation Monitoring

The UXO shall monitor all excavation activities in areas potentially contaminated with UXO. One member of the team shall be positioned to the rear and upwind of the excavation equipment for continuous visual observation of activities. If the construction contractor unearths or otherwise encounters suspect UXO, all excavation activities shall cease. The UXO team will assess the condition of the UXO to determine if disposal action is required. Once the UXO has been encountered in an excavation, no further excavation is allowed at that location. Once the UXO has been removed and the UXO team has issued the "All Clear" signal, excavation may continue.

1.64.7.14 Unplanned UXO Discovery

If, during construction activities, UXO is unexpectantly discovered or uncovered, or suspected to be present, all operations shall cease immediately. The contractor shall safeguard the site pending notification and arrival of the UXO team. No further work shall be conducted in that location until the UXO team has assessed the situation to determine if disposal action is required. Once the UXO has been removed and the UXO team has issued an "All Clear" notice, construction work may continue.

1.64.7.15 UXO Destruction

Destruction of recovered UXO can take one of three (3) forms: in-place; on-site; and off-site. The decision regarding which technique should be used must be based on the nature of the UXO encountered, site-specific characteristics and the risk involved in employing the disposal operation. The decision regarding the technique rests with the UXO Safety Supervisor (UXOSO) who has final on-site authority for all UXO matters. Under no circumstances will UXO destruction activities be conducted with less than a three (3) man team. One member of this team must always be located outside the minimum separation distance for intentional detonations to give warning and assist in rescue activities in the event of an accident.

a. IN-PLACE DESTRUCTION: When an UXO item cannot be safely moved to an alternate location for destruction, In-place destruction (blow-in-place) may be used. Prior to commencement of in-place destruction, the UXO Team shall conduct a joint meeting with the Contracting Officer, the Construction Contractor, and any other stake holders deemed necessary by the Government. The purpose of this meeting is to coordinate the proposed in-place destruction and allow the stakeholders an opportunity to access any potential negative impact. If negative impact is identified, the UXO team shall allow a reasonable time for the stakeholder to implement mitigating measures as appropriate.

b. ON-SITE DESTRUCTION: If UXO is encountered in close proximity to occupied buildings and it is not possible to safely destroy the item in place, the item may be moved to a remote part of the project site where destruction and disposal can safely take place. Engineering controls to minimize the blast effect shall be used when appropriate.

c. OFF-SITE DESTRUCTION: UXO transported off-site for destruction shall be transported in military or civilian vehicles [modified] [manufactured] [created] [built] for the purpose.

(1) Armed fuses will only be transported when absolutely necessary and when all other avenues for in-place disposal have been exhausted.

(2) Base-ejection type projectiles shall be transported with the base oriented to the rear of the vehicle and the projectile secured.

(3) Incendiary loaded munitions shall be placed on a bed of sand and covered with sand.

(4) Loose pyrotechnic, tracer, flare, and similar mixtures shall be placed in # 10 mineral oil or equivalent.

(5) White phosphorus filled munitions shall be immersed in water, mud, or wet sand.

1.64.8 Explosives

Explosives used for the destruction of UXO shall be acquired and managed in accordance with applicable Federal, Host Nation, and local laws and regulations.

1.64.9 Temporary Explosives Storage Facilities

The UXO Contractor shall establish and maintain temporary storage magazine for explosives in accordance with applicable Federal, Host Nation, and local laws and regulations. The Contractor is responsible for determining and implementing physical security. This includes but is not necessarily limited to adequate fencing, guards, secure doors, key control system, and inventory control.

1.64.10 Procedures For Suspected Chemical Weapons

Munitions containing s chemical substance that is intended to kill, seriously injure, or incapacitate a person through its physiological effects will be considered a chemical weapon.

1.64.10.1 Chemical Weapons Discovery

Any time suspected chemical weapons are encountered, all work will immediately cease. All personnel will withdraw along cleared paths upwind from the discovery. The contractor shall safeguard the site pending notification and arrival of the UXO team. No further work shall be conducted in that location until the UXO team has assessed the situation to determine if the item is a chemical weapon. Personnel shall position themselves as far upwind as possible while still maintaining security of the area.

1.64.10.2 Notification

If the UXO team determines that the item encountered is in fact a chemical weapon, the UXO shall immediately contact the Contracting Officer. With the exception of safeguarding the site, no further action shall be taken pending notification from the Contracting Officer.

1.64.11 Submittal Requirements

The following submittals requiring Government approval shall be submitted in accordance with Section [01330 SUBMITTAL PROCEDURES] [01335 SUBMITTAL PROCEDURES FOR DESIGN/BUILD PROJECTS]:

SD-01 Preconstruction Submittals

UXO Work Plan: A minimum of thirty (30) calender days prior to proposed start of work, the UXO Contractor shall submit a comprehensive UXO Plan for review and comment by the government. The objective is to conduct safe and efficient operations while limiting potential exposure to a minimum number of personnel for a minimum time and to a minimum amount of UXO. Modifications may be required to the Work Plan and/or the Site Safety and Health Plan (SSHP) after approval by the Contracting Officer. A modification that affects any UXO subsurface clearance operational and/or safety procedures may also require a revision to and re-submittal of the

Explosives Siting Plan. At a minimum the plan shall include but not necessarily be limited to the following:

a. A detailed description of the proposed management approach.

b. Step-by-step instructions on the proposed operational procedures that will be used to complete the UXO clearance operations specific to this contract.

c. Comprehensive guidelines indicating the methods and procedures specific to this contract that the UXO team(s) intends to implement to promote safe and efficient operations.

d. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a UXO function.

e. A copy of the letter to each UXO team member signed by an authorized official of the firm which describes the responsibilities and authorities delegated to that individual including authority to stop work which is not in compliance with the contract or, is deemed unsafe.

f. Procedures for tracking UXO work and safety deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

g. The specific, instrumentation, apparatus, gear, protective gear, machinery, accessories and accouterments the UXO contractor proposes to use including maintenance and calibration schedules.

h. The contractor shall validate the capabilities of geophysical instrumentation by demonstrating that it is capable of detecting the smallest known or anticipated UXO through the use of a test plot. Each piece of geophysical instrumentation shall be tested and the results documented within the UXO Work Plan.

i. A listing of all proposed training and training schedules.

j. Documented listing of archival information researched regarding the area of the proposed construction activities and, the known and suspected types of UXO that may be encountered.

k. Comprehensive reference material detailing the complete specifications, ordnance recognition charts, disarming instructions, unique characteristic's, features, nature, peculiarity(ies), as well as lessons learned concerning each type and variant of UXO that is known or suspected to be encountered.

l. Utility locations and potential sources of Electromagnetic Radiation (EMR) in the radio frequency range originating from devices such as radio, radar, television transmitters, antennas, communication and radar devices.

m. The location of all potential sources of electromagnetic radiation (EMR) in the radio frequency range originating from devices such as radio, radar, and television transmitters, shall be documented. The appropriate agency(ies) or company(ies) responsible for their control,

the means for their control, as well as full contact information for the appropriate and backup point-of-contact shall be listed.

n. Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS, as well as section [01320] [013__] PROJECT SCHEDULE, the contractor shall provide a schedule in an appropriate level of detail to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis for all partial progress payments.

o. The procedures for destruction of recovered UXO recovered and the procedures for in-place, on-site, and off-site destruction of recovered UXO.

p. The procedures for Transportation of UXO detailing the route and measures that need be enacted prior to engaging in any transport activities as well as the how the Contractor intends to comply with Host Nation and US Laws.

q. The locations of temporary storage magazines for explosives.

r. The plan shall describe the inventory control system to be implemented for explosives management.

****
1.64.11s. Indicate whether the bomb dump is located on-site or off-site, its location and the approved route that the UXO Contractor may travel to reach it. If off site, Host nation coordination will be required. If on-site, this information may be provided on one of the site drawings. If so, indicate which drawing.
****

s. Bomb Dump Study Report. The existing bomb dump is located [on-site] [off-site] as indicated on drawing [____] [__describe location__]. The travel route, approved for use by the Contractor is also indicated. The Contractor in conjunction with the Contracting Officer, shall inspect the facility and provide a detailed report quantifying all the repairs necessary to restore and/or maintain the facility to full operating condition.

t. The Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

EXPLOSIVES SITING PLAN (ESP): The ESP is a component of the Work Plan and shall be prepared for UXO support during construction activities. The ESP discusses the proposed minimum separation distances for unintentional detonations, intentional detonations, and siting of critical project components.

a. The ESP should describe the basis of design, all design calculations, and proposed hazard mitigation measures to be implemented to protect the public, non-project personnel, and site workers from explosive hazards.

b. The ESP will discuss the following explosives operations: Ordnance and explosive areas, explosives storage magazines, and planned or established demolition areas. The location of these explosives

operations will be sited on a map with a minimum scale of 1 inch equals 400 feet. The minimum separation distances calculated for the operation should be discussed in the text of the plan and Quantity-Distance (Q-D) arcs for the above-listed project elements drawn on the map.

c. Quantity-Distance. Explosives safety distance tables prescribe the necessary separations and specify the maximum quantities for various classes of explosives permitted in any one location. These distances will be used for siting storage locations.

d. Ordnance and Explosive Areas. During intrusive operations, safe separation distances will be determined using two sets of minimum separation distance criteria. The first set of criteria shall be established for unintentional detonations (i.e., not planned in advance) and the second set of criteria shall be established for intentional detonations (i.e., planned, controlled detonations).

(1) Unintentional detonations: For an unintentional detonation, the applicable minimum separation distances are the minimum separation distances for unintentional detonations and the team separation distance (TSD). The minimum separation distance for unintentional detonations is the safe separation distance for non-project personnel from intrusive operations. The TSD is the distance that UXO teams must be separated during intrusive operations.

(2) Intentional Detonations: The minimum separation distance for intentional detonations is the distance that both project personnel and the public must be from the intentional detonation.

e. Explosives Storage Magazines: The ESP should provide the following information on explosives storage magazines:

(1) Type(s) of magazines used (e.g., Bureau of Alcohol, Tobacco and Firearms Classification [Type 1-5], portable commercial, above ground, shed, earth covered, etc.).

(2) Net Explosive Weight (NEW) and hazard division to be stored in each magazine.

(3) Quantity-Distance (Q-D) criteria used to site the magazine.

(4) Design criteria for any proposed engineering controls to be used to mitigate exposures to the public when Q-D criteria cannot be met.

(5) Proposed placarding/signage for Magazines.

f. Planned or Established Demolition Areas. The safe separation distance for these areas will be based on the minimum separation distance criteria for intentional detonations.

g. Footprint Areas. The following footprint areas should be discussed in the ESP: In-place destruction (blow-in-place) , collection points, and in-grid consolidated shots. These areas, however, do not have to be shown on the site map. The safe separation distances for these footprint areas are described in the following paragraphs.

(1) In-place destruction (blow-in-place). Blow-in-place is the

preferred method for disposal of UXO. In-place destruction (blow-in-place) occurs when a UXO item is prepared and detonated in-place. The safe separation distances for In-place destruction (blow-in-place) areas will be determined using the minimum separation distance criteria for intentional detonations.

(2) Collection Points. Collection points are areas where recovered UXO that is safe to move is temporarily accumulated within a search grid pending relocation to another area for storage or destruction. Collection points shall be limited to an amount of explosives to be destroyed that will not exceed safe separation distances. The safe separation distances for collection points will be determined using the minimum separation distance criteria for unintentional detonations.

(3) In-Grid Consolidated Shots. In-grid consolidated shots occur when recovered UXO that is safe to relocate is collected and destroyed within a search grid. In contrast to an established demolition ground, consolidated shots occur within a search grid rather than in a separate area.

h. The calculated minimum separation distances for unintentional detonations specified above are considered minimums for safe execution of normal operations.

SITE SAFETY AND HEALTH PLAN (SSHP): The SSHP is a component of the Work Plan and shall be prepared for UXO support during construction activities. The SSHP specifically addresses UXO safety and health considerations and shall be site specific and include task-specific analyses. At a minimum the plan shall include the following:

a. The SSHP shall include all documentation necessary for strict compliance with the requirements stated in EM 385-1-1 SAFETY AND HEALTH REQUIREMENTS MANUAL.

b. A description of site-specific emergency clothing. This shall include a listing of acceptable clothing as well as clothing that is restricted and or prohibited during daily operations.

c. Specific safety considerations that are unique to each type and variant of known or suspected UXO.

d. Emergency response procedures and protocols. Procedures. UXO support activities may result in accidents or incidents, regardless of the safeguards implemented. The SSHP will describe site-specific emergency response procedures, including identification of all appropriate Point-of-Contacts (POC's).

e. Mishap Reporting, Incident Reports and Investigation Requirements. Site-specific reporting and investigation procedures, including identification of appropriate POC's.

f. Safety procedures, protocols and considerations.

g. Proposed medical examinations, surveillance and schedule.

h. Written copy of the safety indoctrination and training briefings given to all on-site personnel. This briefing should address the following:

(1) Probable site hazards

(2) Site-specific safety considerations.

(3) UXO safety support procedures.

(4) Responsibilities and lines of authority for any UXO-related response.

(5) Emergency response procedures.

i. In addition to requirements stated elsewhere, a specific Activity Hazard Analysis shall be completed for each type of equipment producing Electromagnetic Radiation (EMR) or Radio Frequency (RF). This includes but is not necessarily limited to all active and passive subsurface detection devices. As part of the Activity Hazard Analysis, the minimum separation distance between an EMR/RF emitting device and potential Electroexplosive Devices (EED) shall be calculated. This calculation shall be based on the following characteristics of the transmitting device and the potential EEDs:

(1) The transmitter frequency (f,in MHz).

(2) The peak envelope transmitting power (Pt, in W).

(3) The transmitter gain (GdB).

j. A copy of the letter to the UXO Safety Officer (UXOSO) signed by an authorized official of the firm which describes the responsibilities and authorities delegated to that individual including authority to stop work. The qualifications, specific training, knowledge, and experience of the individual proposed will be included as an attachment.

QUALITY CONTROL PLAN (QCP) AND CONTRACTOR QUALITY CONTROL REPORTS:

a. The UXO Contractor shall submit a QUALITY CONTROL PLAN (QCP) for review and comment by the government. This QCP shall be in addition to and supplement the requirements of specification section 01451 CONTRACTOR QUALITY CONTROL. It shall outline the quality control activities that are to be used for continually assessing the implementation, effectiveness, compliance, and adequacy of UXO operations. At a minimum the QCP shall provide procedures for validation of the following:

(1) Surface clearance and related activities are conducted in accordance with accepted plans.

(2) Subsurface clearance and related activities are conducted in accordance with accepted plans.

(3) Actual probabilities of detection are consistent with clearance reliability levels.

(4) Subsurface clearance operations provide for an adequate level of confidence of UXO detection and removal to specified depths.

(5) Disposition of UXO.

(6) After action reports for unplanned UXO discoveries during construction.

b. In addition to the requirements stated in specification section 01451 CONTRACTOR QUALITY CONTROL, the UXO Contractor shall perform daily CQC reviews of all field activities and submit a supplemental CQC report which includes but is not necessarily limited to the following:

(1) A daily report of all activities associated with the identification, removal, transportation, and disposal of unexploded ordnance, including the number of response calls,identification procedures, removal procedures, transportation procedures, and disposal procedures.

(2) A map, at a scale approved by the contracting Officer, that shows the location, type and status of all identified unexploded ordnance. Project sites, work areas, and lay down areas shall also be identified on this map.

(a) Horizontal Accuracy. Horizontally, 95 percent of all excavated items must lie within a 10 centimeter radius of their mapped surface location as marked in the field after reacquisition; 98 percent of all excavated items must lie within a 20 centimeter radius.

(3) A listing of all munitions and UXO components encountered to include positive identification and disposition.

(4) False Positives where UXO anomalies result in no detectable, metallic material during excavations.

c. A copy of the letter to the UXO Contractor Quality Control Officer signed by an officer or authorized official of the firm which describes the responsibilities and authorities delegated to that individual including authority to stop work. The qualifications, specific training, knowledge, and experience of the individual proposed will be included as an attachment.

1.64.12 Public Disclosure

The Contractor shall not publicly disclose any data generated or reviewed under this contract. The contractor shall refer all requests for information concerning site conditions to the Transatlantic Programs Center Public Affairs Office in Winchester, Virginia with a copy to the Contracting Officer. Reports and data generated under this contract are the property of the Department of Defense (DoD) and distribution to any other source by the Contractor is prohibited unless authorized by the Contracting Officer.

1.64.13 Notification Of Noncompliance

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made

the subject of claim for extension of time or for excess costs or damages by the Contractor.

****

GENERAL NOTE: Geophysical instrumentation shall be capable of detecting the smallest known or anticipated UXO and may include:

Magnetometry (Magnetometers and gradiometers)
Fluxgate Magnetometers
Optically Pumped Atomic Magetometers
Electromagnetic Detectors
Frequency Domain Electromagnetics
Time Domain Conductivity Electromagnetics

UXO removal equipment may include:

Supersonic Excavator
Skid-mounted self contained air excavators

****

1.65 NOT USED

1.66 ATTACHMENTS

APPENDIX A - [Exploration Data] [NOT USED]
APPENDIX B - [Identification of Government Furnished Property] [NOT USED]
APPENDIX C - [Blasting Report - Plates 1, 2 and 3] [NOT USED]
TAC FORM 61 - Accident Prevention Program Hazard Analysis
TAC FORM 356 - Operation and Maintenance Training Validation Certificate

-- End of Section --